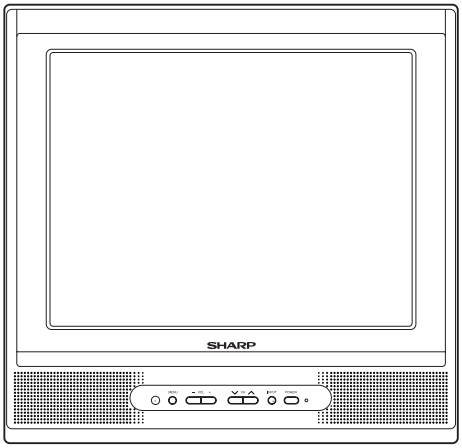
# SHARP SERVICE MANUAL

S74Y1LC13SH1U

SERVICE MANUAL

LCD COLOR TV

MODEL LC-13SH1U




# LCD COLOR TV

# MODEL LC-13SH1U

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified be used.

## CONTENTS


| | Page |
|---|---|
| SPECIFICATIONS | 1-1 |
| IMPORTANT SAFEGUARDS AND PRECAUTIONS | 2-1 |
| STANDARD NOTES FOR SERVICING | 3-1 |
| CABINET DISASSEMBLY INSTRUCTIONS | 4-1 |
| ELECTRICAL ADJUSTMENT INSTRUCTIONS | 5-1 |
| TROUBLESHOOTING | 6-1 |
| BLOCK DIAGRAMS | 7-1 |
| SCHEMATIC DIAGRAMS/ CBA'S AND TEST POINTS | 8-1 |
| WAVEFORMS & VOLTAGE CHART | 9-1 |
| WIRING DIAGRAM | 10-1 |
| IC PIN FUNCTION DESCRIPTIONS | 11-1 |
| EXPLODED VIEWS | 12-1 |
| MECHANICAL PARTS LIST | 13-1 |
| ELECTRICAL PARTS LIST | 14-1 |


SHARP CORPORATION

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# SPECIFICATIONS

## <TUNER>

ANT. Input ..... 75ohm Unbal., F type
Reference Level ..... 20Vp-p (CRT Green Cathode)
Test Input Signal ..... 400Hz 30% modulation

| Description | Condition | Unit | Nominal | Limit |
|---|---|---|---|---|
| 1. Intermediate Freq. | Picture<br>Sound | MHz<br>MHz | 45.75<br>41.25 | -<br>- |
| 2. Color Killer Sens. | CH-2<br>CH-10<br>CH-55 | dBμV<br>dBμV<br>dBμV | 15<br>15<br>15 | 20<br>20<br>20 |
| 3. AFT Pull In Range<br>(10mV input) | - | MHz | ±2.1 | ±0.7 |

## <LCD PANEL>

| Description | Condition | Unit | Nominal | Limit |
|---|---|---|---|---|
| 1. Number of Pixels | Horizontal<br>Vertical | pixels<br>pixels | 640 x 3<br>480 | -<br>- |
| 2. Brightness | | $cd/m^2$ | 420 | - |
| 3. Color Gamut | - | % | 64 | - |
| 4. Response Time | - | msec | 16 | - |
| 5. Support Color | - | - | 16mil.(8bit) | - |
| 6. Viewing Angle<br>(at contrast 1:10 min.) | Horizontal<br>Vertical | °<br>° | -85 to 85<br>-85 to 85 | - |

**The LCD panel is manufactured to provide many years of useful life. Occasionally a few non active pixels may appear as a tiny spec of color. This is not to be considered a defect in the LCD screen.**

## <VIDEO>

| Description | Condition | Unit | Nominal | Limit |
|---|---|---|---|---|
| 1. Over Scan | Horizontal<br>Vertical | %<br>% | 5<br>5 | -<br>- |
| 2. Color Temperature (80% WHITE) | -<br>x<br>y | °K | 8500+10MPCD<br>0.292<br>0.307 | -<br>±0.01<br>±0.01 |
| 3. Color Temperature (40% WHITE) | -<br>x<br>y | °K | 9000<br>0.286<br>0.299 | -<br>±0.01<br>±0.01 |
| 4. Resolution | Horizontal<br>Vertical | line<br>line | 400<br>350 | -<br>- |

## <AUDIO>

All items are measured across 8Ω load at speaker output terminal with L.P.F.

| Description | Condition | Unit | Nominal | Limit |
|---|---|---|---|---|
| 1. Audio Output Power | 10% THD: Lch/Rch | W | 1.0/1.0 | 0.8/0.8 |
| 2. Audio Distortion | 500mW: Lch/Rch | % | 1.0/1.0 | 4.0/4.0 |
| 3. Audio Freq. Response | -3dB: Lch<br>-3dB: Rch | Hz<br>Hz | 50 to 12K<br>50 to 12K | -<br>- |

**Note:**

Nominal specifications represent the design specifications. All units should be able to approximate these. Some will exceed and some may drop slightly below these specifications. Limit specifications represent the absolute worst condition that still might be considered acceptable. In no case should a unit fail to meet limit specifications.

# IMPORTANT SAFEGUARDS AND PRECAUTIONS

Prior to shipment from the factory, our products are strictly inspected for recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

## Safety Precautions for TV Circuit

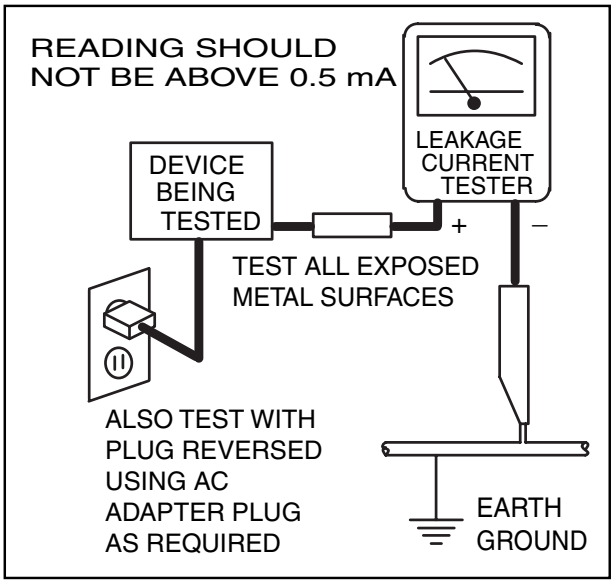
1. **Before returning an instrument to the customer,** always make a safety check of the entire instrument, including, but not limited to, the following items:

**a.** Be sure that no built-in protective devices are defective and have been defeated during servicing. (1) Protective shields are provided on this chassis to protect both the technician and the customer. Correctly replace all missing protective shields, including any removed for servicing convenience. (2) When reinstalling the chassis and/or other assembly in the cabinet, be sure to put back in place all protective devices, including but not limited to, nonmetallic control knobs, insulating fishpapers, adjustment and compartment covers/shields, and isolation resistor/capacitor networks. **Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning. Servicers who defeat safety features or fail to perform safety checks may be liable for any resulting damage.**

**b.** Be sure that there are no cabinet openings through which an adult or child might be able to insert their fingers and contact a hazardous voltage. Such openings include, but are not limited to, (1) spacing between the picture tube and the cabinet mask, (2) excessively wide cabinet ventilation slots, and (3) an improperly fitted and/or incorrectly secured cabinet back cover.

**c. Antenna Cold Check -** With the instrument AC plug removed from any AC source, connect an electrical jumper across the two AC plug prongs. Place the instrument AC switch in the on position. Connect one lead of an ohmmeter to the AC plug prongs tied together and touch the other ohmmeter lead in turn to each tuner antenna input exposed terminal screw and, if applicable, to the coaxial connector. If the measured resistance is less than 1.0 megohm or greater than 5.2 megohm, an abnormality exists that must be corrected before the instrument is returned to the customer. Repeat this test with the instrument AC switch in the off position.

**d. Leakage Current Hot Check -** With the instrument completely reassembled, plug the AC line cord directly into a 120V AC outlet. (Do not use an isolation transformer during this test.) Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI) C101.1 Leakage Current for Appliances and Underwriters Laboratories (UL) 1410, (50.7). With the instrument AC switch first in the on position and then in the off position, measure from a known earth ground (metal water pipe, conduit, etc.) to all exposed metal parts of the instrument (antennas, handle brackets, metal cabinet, screw heads, metallic overlays, control shafts, etc.), especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 0.5 milli-ampere. Reverse the instrument power cord plug in the outlet and repeat the test.




**ANY MEASUREMENTS NOT WITHIN THE LIMITS SPECIFIED HEREIN INDICATE A POTENTIAL SHOCK HAZARD THAT MUST BE ELIMINATED BEFORE RETURNING THE INSTRUMENT TO THE CUSTOMER OR BEFORE CONNECTING THE ANTENNA OR ACCESSORIES.**

**e. X-Radiation and High Voltage Limits -** Because the picture tube is the primary potential source of X-radiation in solid-state TV receivers, it is specially constructed to prohibit X-radiation emissions. For continued X-radiation protection, the replacement picture tube must be the same type as the original. Also, because the picture tube shields and mounting hardware perform an X-radiation protection function, they must be correctly in place. High voltage must be measured each time servicing is performed that involves B+, horizontal deflection or high voltage. Correct operation of the X-radiation protection circuits also must be reconfirmed each time they are serviced. (X-radiation protection circuits also may be called "horizontal disable" or "hold down.") Read and apply the high voltage limits and, if the chassis is so equipped, the X-radiation protection circuit

specifications given on instrument labels and in the Product Safety & X-Radiation Warning note on the service data chassis schematic. High voltage is maintained within specified limits by close tolerance safety-related components/adjustments in the high-voltage circuit. If high voltage exceeds specified limits, check each component specified on the chassis schematic and take corrective action.

2. Read and comply with all caution and safety-related notes on or inside the receiver cabinet, on the receiver chassis, or on the picture tube.
3. **Design Alteration Warning -** Do not alter or add to the mechanical or electrical design of this TV receiver. Design alterations and additions, including, but not limited to circuit modifications and the addition of items such as auxiliary audio and/or video output connections, might alter the safety characteristics of this receiver and create a hazard to the user. Any design alterations or additions will void the manufacturer's warranty and may make you, the servicer, responsible for personal injury or property damage resulting therefrom.
4. **Picture Tube Implosion Protection Warning -** The picture tube in this receiver employs integral implosion protection. For continued implosion protection, replace the picture tube only with one of the same type number. Do not remove, install, or otherwise handle the picture tube in any manner without first putting on shatterproof goggles equipped with side shields. People not so equipped must be kept safely away while picture tubes are handled. Keep the picture tube away from your body. Do not handle the picture tube by its neck. Some "in-line" picture tubes are equipped with a permanently attached deflection yoke; because of potential hazard, do not try to remove such "permanently attached" yokes from the picture tube.
5. **Hot Chassis Warning -**

**a.** Some TV receiver chassis are electrically connected directly to one conductor of the AC power cord and maybe safety-serviced without an isolation transformer only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC power source. To confirm that the AC power plug is inserted correctly, with an AC voltmeter, measure between the chassis and a known earth ground. If a voltage reading in excess of 1.0V is obtained, remove and reinsert the AC power plug in the opposite polarity and again measure the voltage potential between the chassis and a known earth ground.

**b.** Some TV receiver chassis normally have 85V AC(RMS) between chassis and earth ground regardless of the AC plug polarity. This chassis can be safety-serviced only with an isolation transformer inserted in the power line between the receiver and the AC power source, for both personnel and test equipment protection.

**c.** Some TV receiver chassis have a secondary ground system in addition to the main chassis ground. This secondary ground system is not isolated from the AC power line. The two ground systems are electrically separated by insulation material that must not be defeated or altered.

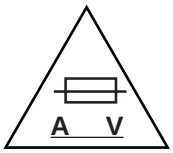
6. Observe original lead dress. Take extra care to assure correct lead dress in the following areas:a. near sharp edges,b. near thermally hot parts-be sure that leads and components do not touch thermally hot parts,c. the AC supply,d. high voltage, and,e. antenna wiring. Always inspect in all areas for pinched, out of place, or frayed wiring. Check AC power cord for damage.
7. Components, parts, and/or wiring that appear to have overheated or are otherwise damaged should be replaced with components, parts, or wiring that meet original specifications. Additionally, determine the cause of overheating and/or damage and, if necessary, take corrective action to remove any potential safety hazard.
8. **Product Safety Notice -** Some electrical and mechanical parts have special safety-related characteristics which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc.. Parts that have special safety characteristics are identified by a ( ⚠ ) on schematics and in parts lists. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire, and/or other hazards. The product's safety is under review continuously and new instructions are issued whenever appropriate. Prior to shipment from the factory, our products are strictly inspected to confirm they comply with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

# IMPORTANT SERVICE SAFETY PRECAUTION

■ **Service work should be performed only by qualified service technicians who are thoroughly familiar with all safety checks and the servicing guidelines which follow:**

## WARNING

1. For continued safety, no modification of any circuit should be attempted.
2. Disconnect AC power before servicing.



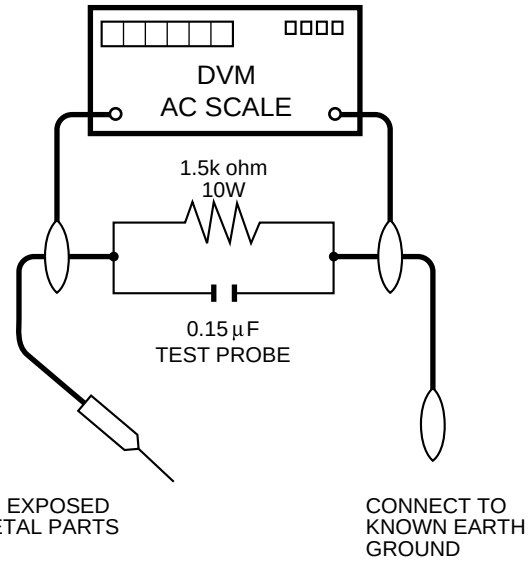

**CAUTION:** FOR CONTINUED PROTECTION AGAINST A RISK OF FIRE REPLACE ONLY WITH SAME TYPE F3701 (2.0A, 250V), F3702 (1.25A, 250V), AND F6701 (6.3A, 250V) FUSE.

## BEFORE RETURNING THE RECEIVER (Fire & Shock Hazard)

**Before returning the receiver to the user, perform the following safety checks:**

1. Inspect all lead dress to make certain that leads are not pinched, and check that hardware is not lodged between the chassis and other metal parts in the receiver.
2. Inspect all protective devices such as non-metallic control knobs, insulation materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacitor networks, mechanical insulators, etc.
3. To be sure that no shock hazard exists, check for leakage current in the following manner.

- Plug the AC cord directly into a 110~240 volt AC outlet, and connect the DC power cable into the receiver's DC jack. (Do not use an isolation transformer for this test).
- Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15µF capacitor in series with all exposed metal cabinet parts and a known earth ground, such as electrical conduit or electrical ground connected to an earth ground.
- Use an AC voltmeter having with 5000 ohm per volt, or higher, sensitivity or measure the AC voltage drop across the resistor.
- Connect the resistor connection to all exposed metal parts having a return to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor.
  All checks must be repeated with the AC cord plug connection reversed. (If necessary, a nonpolarized adaptor plug must be used only for the purpose of completing these checks.)
  Any reading of 0.75V peak (this corresponds to 0.5 mA. peak AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the monitor to the owner.




## SAFETY NOTICE

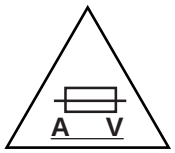
Many electrical and mechanical parts in LCD television have special safety-related characteristics.
These characteristics are often not evident from visual inspection, nor can protection afforded by them be necessarily increased by using replacement components rated for higher voltage, wattage, etc.
Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by "⚠" and shaded areas in the ***Replacement Parts Lists*** and ***Schematic Diagrams***.
For continued protection, replacement parts must be identical to those used in the original circuit.
The use of a substitute replacement parts which do not have the same safety characteristics as the factory recommended replacement parts shown in this service manual, may create shock, fire or other hazards.

# PRECAUTIONS A PRENDRE LORS DE LA REPARATION

■ **Ne peut effectuer la réparation qu' un technicien spécialisé qui s'est parfaitement accoutumé à toute vérification de sécurité et aux conseils suivants.**

## AVERTISSEMENT

1. N'entreprendre aucune modification de tout circuit. C'est dangereux.
2. Débrancher le récepteur avant toute réparation.



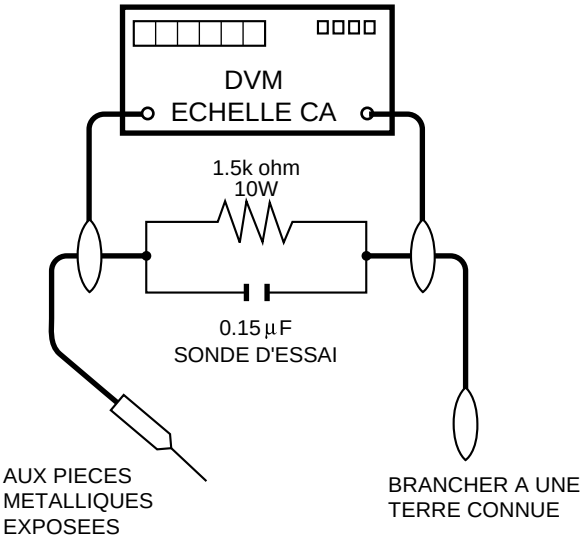

**PRECAUTION**: POUR LA PROTECTION CONTINUE CONTRE LES RISQUES D'INCENDIE, REMPLACER LE FUSIBLE PAR UN FUSIBLE DE MEME TYPE F3701 (2.0A, 250V), F3702 (1.25A, 250V) F6701 (6.3A, 250V).

## VERIFICATIONS CONTRE L'INCEN-DIE ET LE CHOC ELECTRIQUE

**Avant de rendre le récepteur à l'utilisateur, effectuer les vérifications suivantes.**

1. Inspecter tous les faisceaux de câbles pour s'assurer que les fils ne soient pas pincés ou qu'un outil ne soit pas placé entre le châssis et les autres pièces métalliques du récepteur.
2. Inspecter tous les dispositifs de protection comme les boutons de commande non-métalliques, les isolants, le dos du coffret, les couvercles ou blindages de réglage et de compartiment, les réseaux de résistance-capacité, les isolateurs mécaniques, etc.
3. S'assurer qu'il n'y ait pas de danger d'électrocution en vérifiant la fuite de courant, de la facon suivante:

- Brancher le cordon d'alimentation directem-ent à une prise de courant de 110-240V. (Ne pas utiliser de transformateur d'isolation pour cet essai).
- A l'aide de deux fils à pinces, brancher une résistance de 1.5kΩ 10 watts en parallèle avec un condensateur de 0.15μF en série avec toutes les pièces métalliques exposées du coffret et une terre connue comme une conduite électrique ou une prise de terre branchée à la terre.
- Utiliser un voltmètre CA d'une sensibilité d'au moins 5000Ω/V pour mesurer la chute de tension en travers de la résistance.
- Toucher avec la sonde d'essai les pièces métalliques exposées qui présentent une voie de retour au châssis (antenne, coffret métallique, tête des vis, arbres de commande et des boutons, écusson, etc.) et mesurer la chute de tension CA en-travers de la résistance.
  Toutes les vérifications doivent être refaites après avoir inversé la fiche du cordon d'alimentation. (Si nécessaire, une prise d'adpatation non polarisée peut être utilisée dans le but de terminer ces vérifications.)
  Tous les courants mesurés ne doivent pas dépasser 0,5 mA.
  Dans le cas contraire, il y a une possibilité de choc électrique qui doit être supprimée avant de rendre le récepteur au client.




## AVIS POUR LA SECURITE

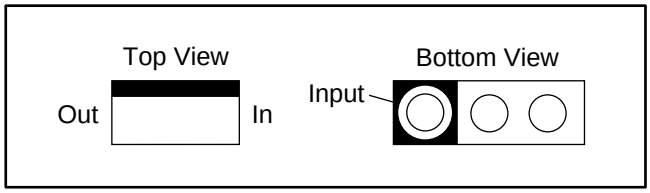
De nombreuses pièces, électriques et mécaniques, dans les téléviseurs présentent des caractéristiques spéciales relatives à la sécurité, qui ne sont souvent pas évidentes à vue. Le degré de protection ne peut pas être nécessairement augmentée en utilisant des pièces de remplacement étalonnées pour haute tension, puissance, etc.
Les pièces de remplacement qui présentent ces caractéristiques sont identifiées dans ce manuel; les pièces électriques qui présentent ces particularités sont identifiées par la marque "⚠" et hachurées dans la liste des pièces de remplacement et les diagrammes schématiques.
Pour assurer la protection, ces pièces doivent être identiques à celles utilisées dans le circuit d'origine.
L'utilisation de pièces qui n'ont pas les mêmes caractéristiques que les pièces recommandées par l'usine, indiquées dans ce manuel, peut provoquer des électrocutions, incendies, radiations X ou autres accidents.

# STANDARD NOTES FOR SERVICING

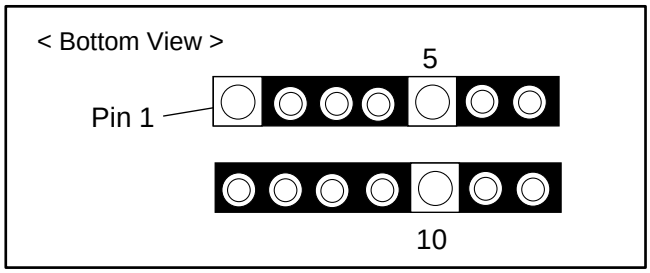
**NOTE: CBA AND PWB MEANS PRINTED WIRING BOARD.**

## Circuit Board Indications

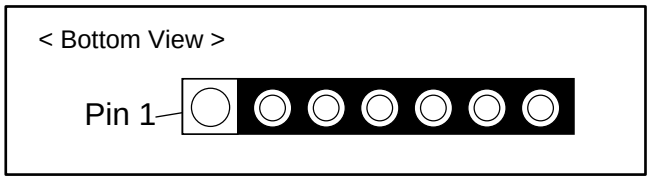
a. The output pin of the 3 pin Regulator ICs is indicated as shown.




b. For other ICs, pin 1 and every fifth pin are indicated as shown.

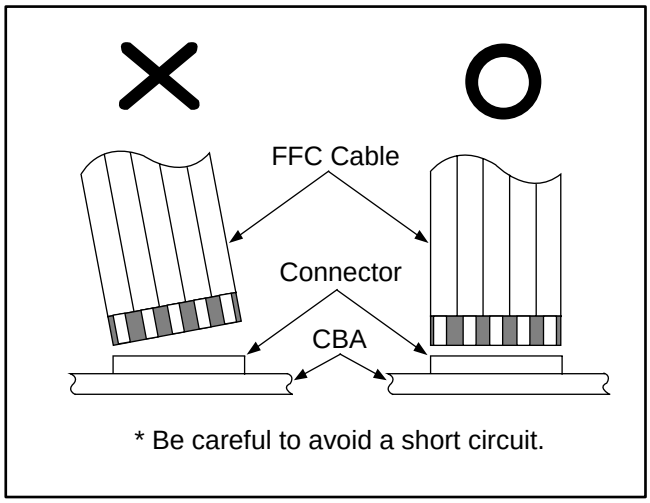



c. The 1st pin of every male connector is indicated as shown.




## Instructions for Connectors

1. When you connect or disconnect the FFC (Flexible Foil Connector) cable, be sure to first disconnect the AC cord.
2. FFC (Flexible Foil Connector) cable should be inserted parallel into the connector, not at an angle.




## Precautions for Using Lead-free Solder

### 1 Employing lead-free solder

Pb free mark (as shown below) indicates lead-free solder, and is attached on the PWBs and service manuals. For PWBs with Pb free mark, be sure to use lead-free solder. For PWB without Pb free mark, use standard solder. The alphabetical character following Pb shows the type of lead-free solder.

### 2 Using lead-free wire solder

When fixing the PWB soldered with the lead-free solder, apply lead-free wire solder. Repairing with conventional lead wire solder may cause damage or accident due to cracks.

As the melting point of lead-free solder (Sn-Ag-Cu) is higher than the lead wire solder by 40°C, we recommend you to use a dedicated soldering bit, if you are not familiar with how to obtain lead-free wire solder or soldering bit, contact our service station or service branch in your area.

### 3 Soldering

As the melting point of lead-free solder (Sn-Ag-Cu) is about 220°C which is higher than the conventional lead solder by 40°C, and as it has poor solder wettability, you may be apt to keep the soldering bit in contact with the PWB for extended period of time. However, Since the land may be peeled off or the maximum heat-resistance temperature of parts may be exceeded, remove the bit from the PWB as soon as you confirm the steady soldering condition.

Lead-free solder contains more tin, and the end of the soldering bit may be easily corroded. Make sure to turn on and off the power of the bit as required.

If a different type of solder stays on the tip of the soldering bit, it is alloyed with lead-free solder. Clean the bit after every use of it.

When the tip of the soldering bit is blackened during use, file it with steel wool or fine sandpaper.

Be careful when replacing parts with polarity indication on the PWB silk.

Lead-free wire solder for servicing

| Part No. | ★ | Description | Code |
|---|---|---|---|
| ZHNDAi123250E | J | ϕ0.3mm 250g(1roll) | BL |
| ZHNDAi126500E | J | ϕ0.6mm 500g(1roll) | BK |
| ZHNDAi12801KE | J | ϕ1.0mm 1kg(1roll) | BM |

# How to Remove / Install Flat Pack-IC

## 1. Removal

**With Hot-Air Flat Pack-IC Desoldering Machine:**

(1) Prepare the hot-air flat pack-IC desoldering machine, then apply hot air to the Flat Pack-IC (about 5 to 6 seconds). (Fig. S-1-1)

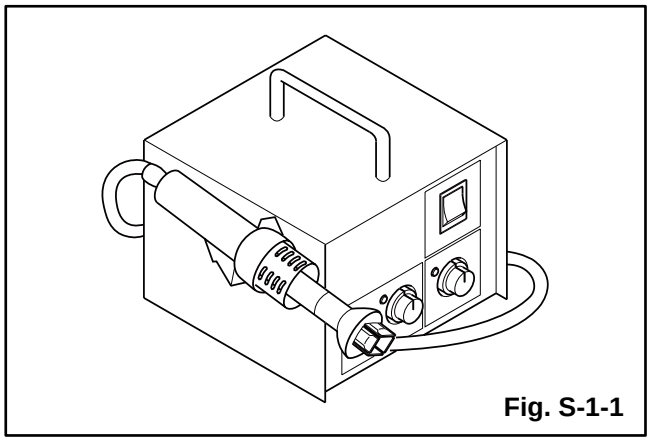


**Fig. S-1-1**

(2) Remove the flat pack-IC with tweezers while applying the hot air.

(3) Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)

(4) Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

**Caution:**

1. Do not supply hot air to the chip parts around the flat pack-IC for over 6 seconds because damage to the chip parts may occur. Put masking tape around the flat pack-IC to protect other parts from damage. (Fig. S-1-2)
2. The flat pack-IC on the CBA is affixed with glue, so be careful not to break or damage the foil of each pin or the solder lands under the IC when removing it.

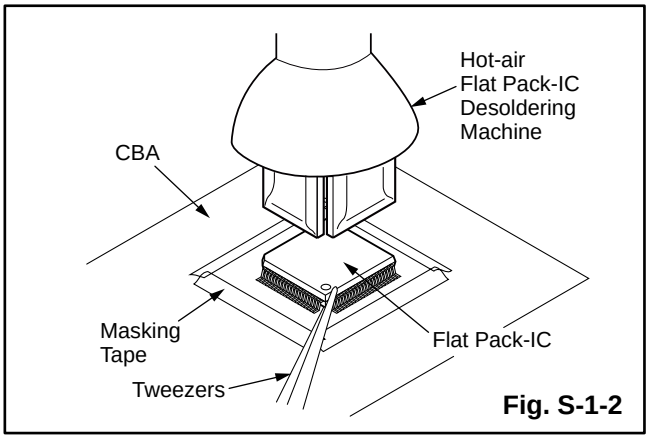



**Fig. S-1-2**

### With Soldering Iron:

(1) Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)

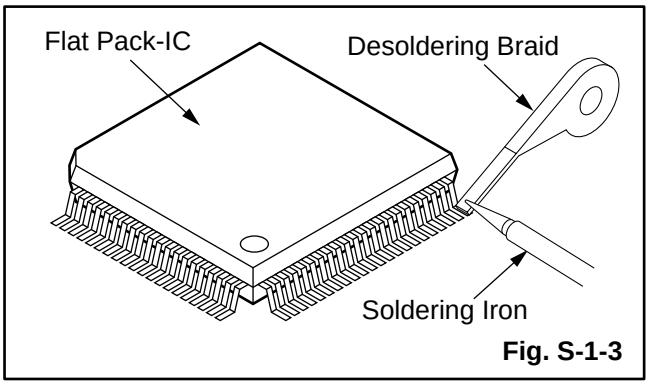



**Fig. S-1-3**

(2) Lift each lead of the flat pack-IC upward one by one, using a sharp pin or wire to which solder will not adhere (iron wire). When heating the pins, use a fine tip soldering iron or a hot air desoldering machine. (Fig. S-1-4)

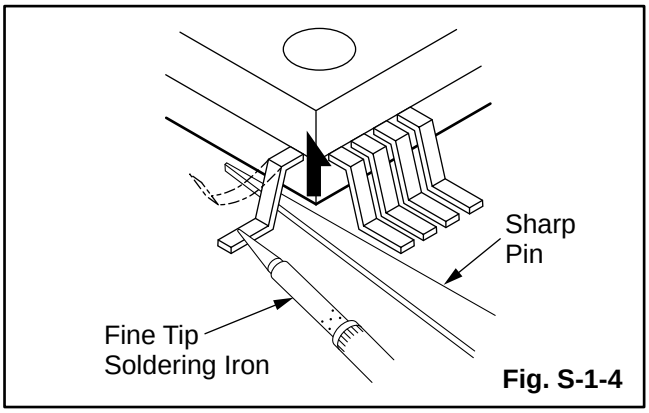



**Fig. S-1-4**

(3) Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)

(4) Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

### With Iron Wire:

(1) Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)

(2) Affix the wire to a workbench or solid mounting point, as shown in Fig. S-1-5.

(3) While heating the pins using a fine tip soldering iron or hot air blower, pull up the wire as the solder melts so as to lift the IC leads from the CBA contact pads as shown in Fig. S-1-5.

(4) Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)

(5) Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

**Note:**

When using a soldering iron, care must be taken to ensure that the flat pack-IC is not being held by glue. When the flat pack-IC is removed from the CBA, handle it gently because it may be damaged if force is applied.

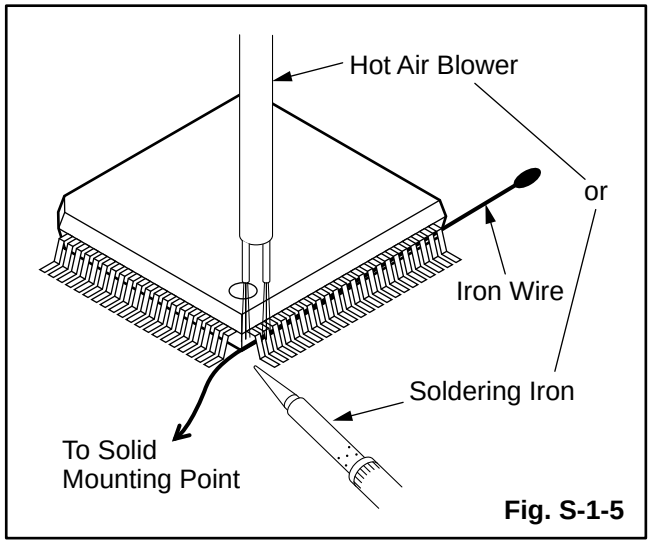



**Fig. S-1-5**

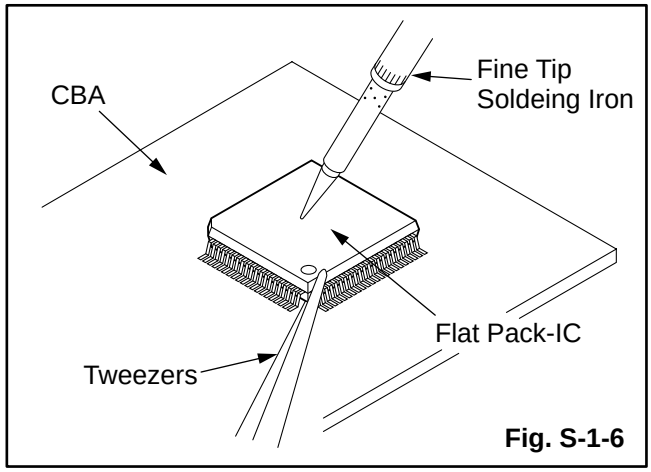



**Fig. S-1-6**

## 2. Installation

(1) Using desoldering braid, remove the solder from the foil of each pin of the flat pack-IC on the CBA so you can install a replacement flat pack-IC more easily.

(2) The "●" mark on the flat pack-IC indicates pin 1. (See Fig. S-1-7.) Be sure this mark matches the 1 on the PCB when positioning for installation. Then presolder the four corners of the flat pack-IC. (See Fig. S-1-8.)

(3) Solder all pins of the flat pack-IC. Be sure that none of the pins have solder bridges.

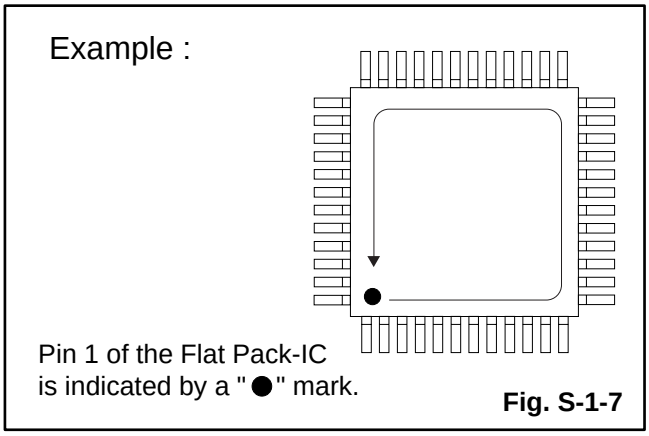



**Fig. S-1-7**

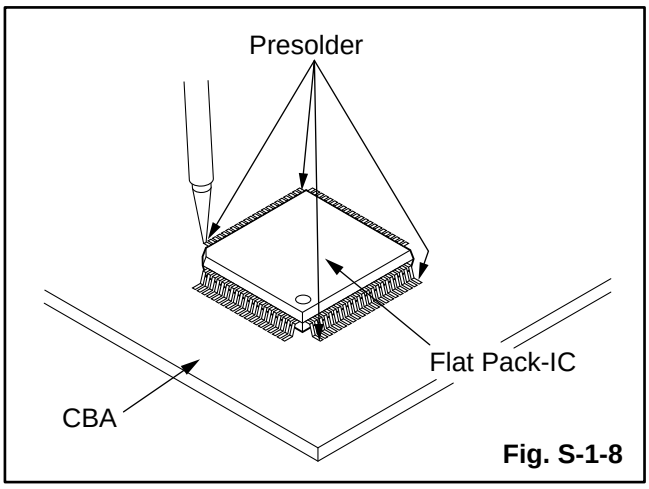



**Fig. S-1-8**

# Instructions for Handling Semi-conductors

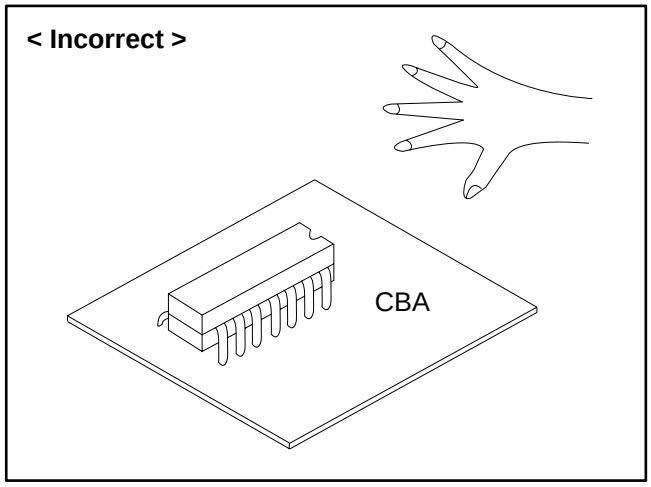
Electrostatic breakdown of the semi-conductors may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

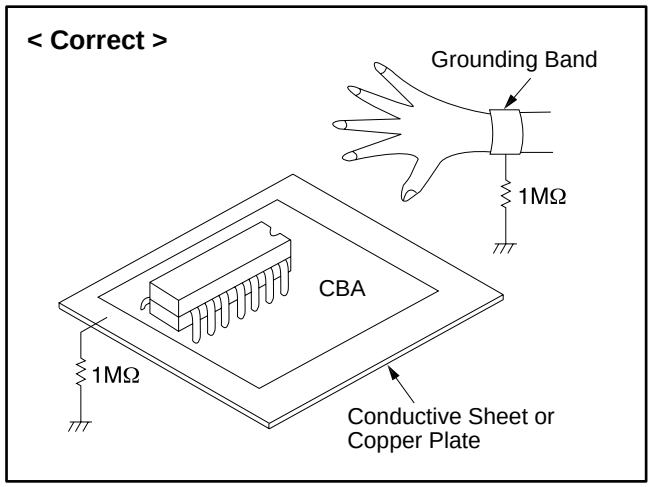
## 1. Ground for Human Body

Be sure to wear a grounding band (1MΩ) that is properly grounded to remove any static electricity that may be charged on the body.

## 2. Ground for Workbench

Be sure to place a conductive sheet or copper plate with proper grounding (1MΩ) on the workbench or other surface, where the semi-conductors are to be placed. Because the static electricity charge on clothing will not escape through the body grounding band, be careful to avoid contacting semi-conductors with your clothing.



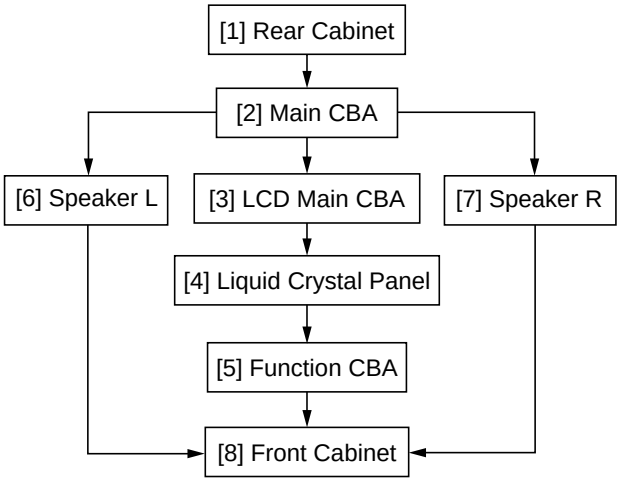



# CABINET DISASSEMBLY INSTRUCTIONS

**NOTE: CBA AND PWB MEANS PRINTED WIRING BOARD.**

## 1. Disassembly Flowchart

This flowchart indicates the disassembly steps to gain access to item(s) to be serviced. When reassembling, follow the steps in reverse order. Bend, route, and dress the cables as they were originally.




## 2. Disassembly Method

| ID/ LOC. No. | PART | REMOVAL | | |
|---|---|---|---|---|
| | | Fig. No. | REMOVE/*UNHOOK/ UNLOCK/RELEASE/ UNPLUG/DESOLDER | Note |
| [1] | Rear Cabinet | D1 | 7(S-1), (S-2) | - |
| [2] | Main CBA | D2 D3 | 3(S-3), 3(S-4), 2(S-5), *CN101A, *CN102A, *CN103A, *CN801, *CN802, *CN401, *CN402, *CN403, *CN404, *CN104 | - |
| [3] | LCD Main CBA | D2 D3 | 4(S-6), *CN310A, *CN311A, *CN321A | - |
| [4] | Liquid Crystal Panel | D2 D3 | 4(S-7) | - |
| [5] | Function CBA | D2 D3 | 3(S-8) | - |
| [6] | Speaker L | D2 D3 | 2(S-9) | - |
| [7] | Speaker R | D2 D3 | 2(S-10) | - |
| [8] | Front Cabinet | D2 | ---------- | - |
| ↑ ① | ↑ ② | ↑ ③ | ↑ ④ | ↑ ⑤ |

① : Identification (location) No. of parts in the figures

② : Name of the part

③ : Figure Number for reference

④ : Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or de-soldered.
P=Spring, L=Locking Tab, S=Screw,
CN=Connector,
*=Unhook, Unlock, Release, Unplug, or Desolder
e.g. 5(S-1) = five Screws (S-1),
2(L-2) = two Locking Tabs (L-2)

⑤ : Refer to "Reference Notes."

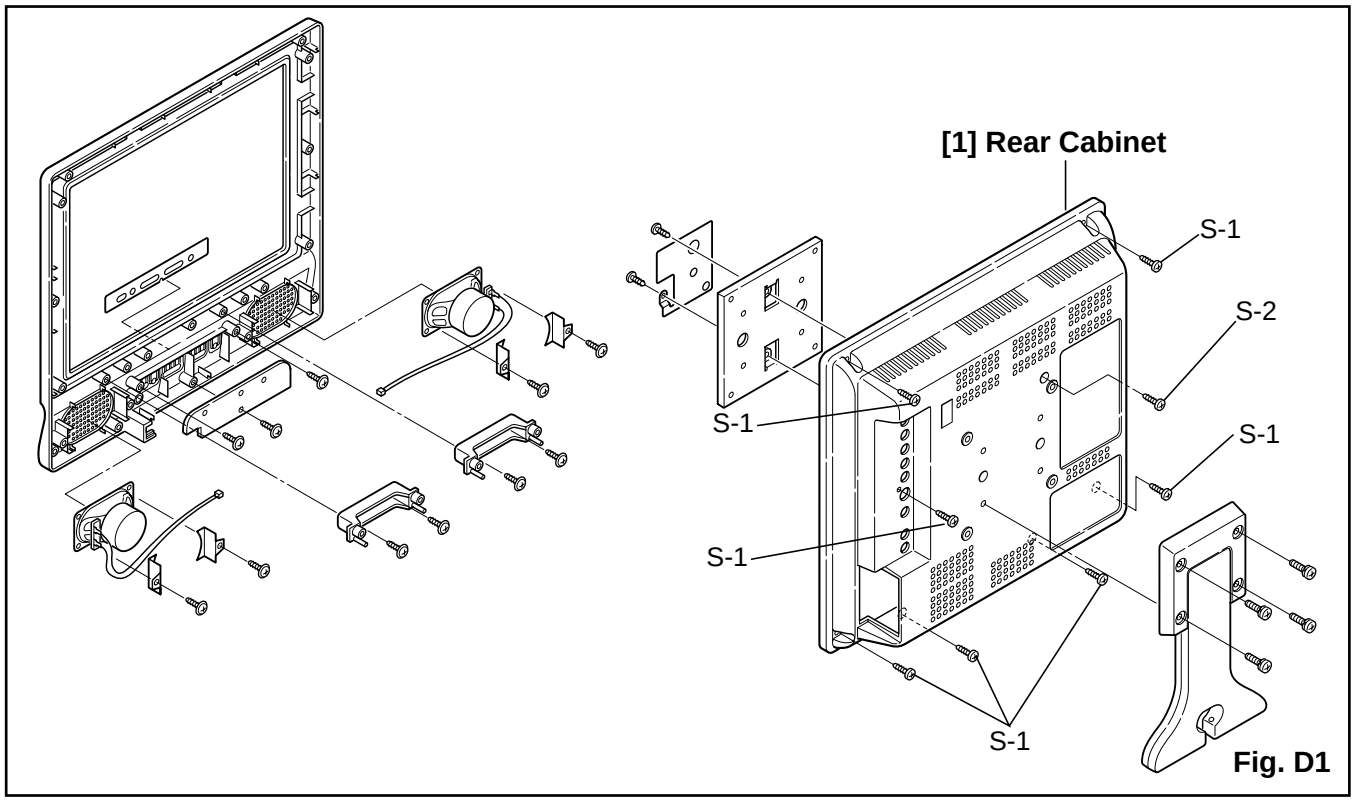



**Fig. D1**

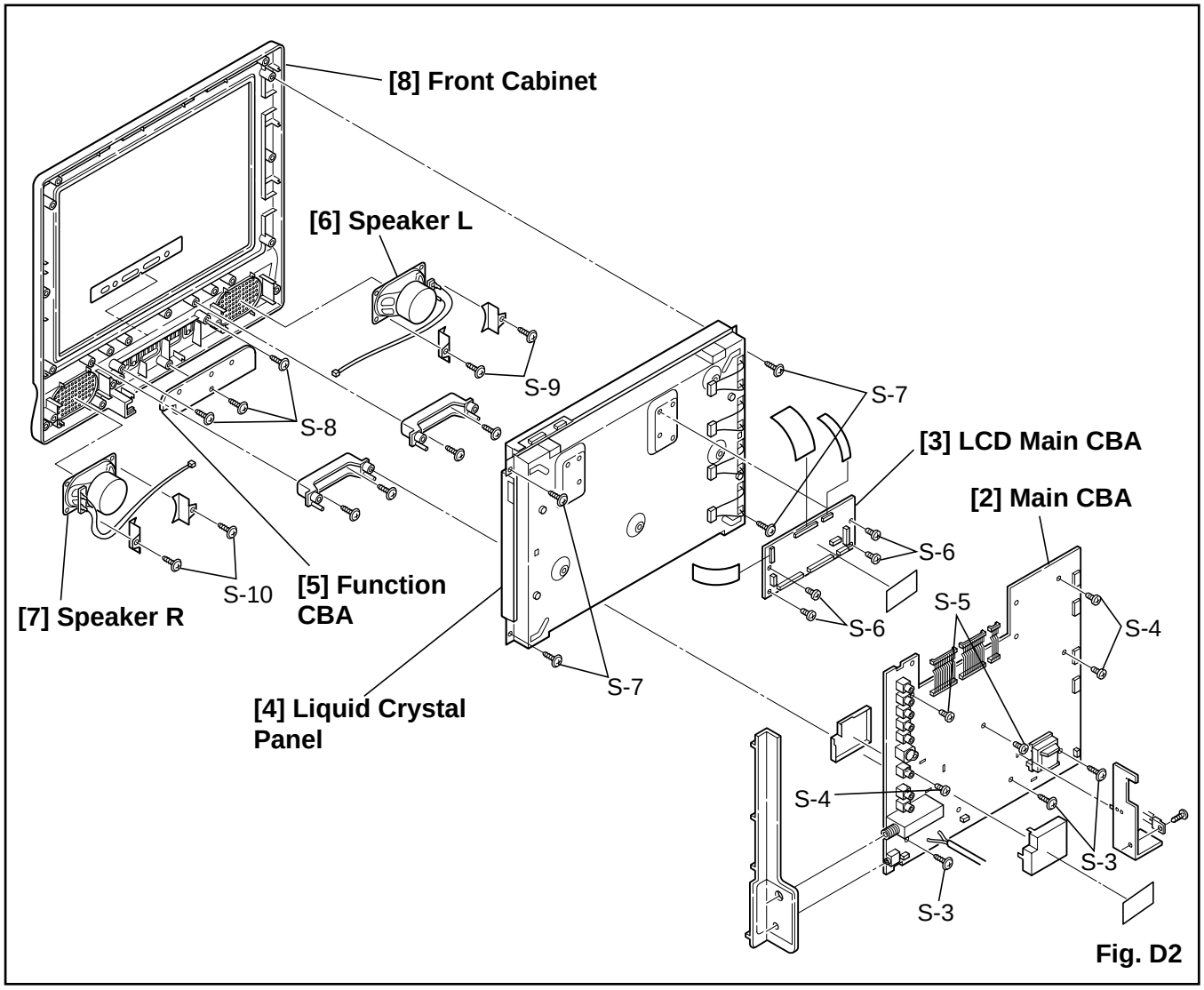

[8] Front Cabinet
[6] Speaker L
S-9
S-8
S-7
[3] LCD Main CBA
[2] Main CBA
S-6
S-6
S-5
S-4
S-10
[5] Function CBA
[7] Speaker R
S-7
[4] Liquid Crystal Panel
S-4
S-3
S-3

**Fig. D2**

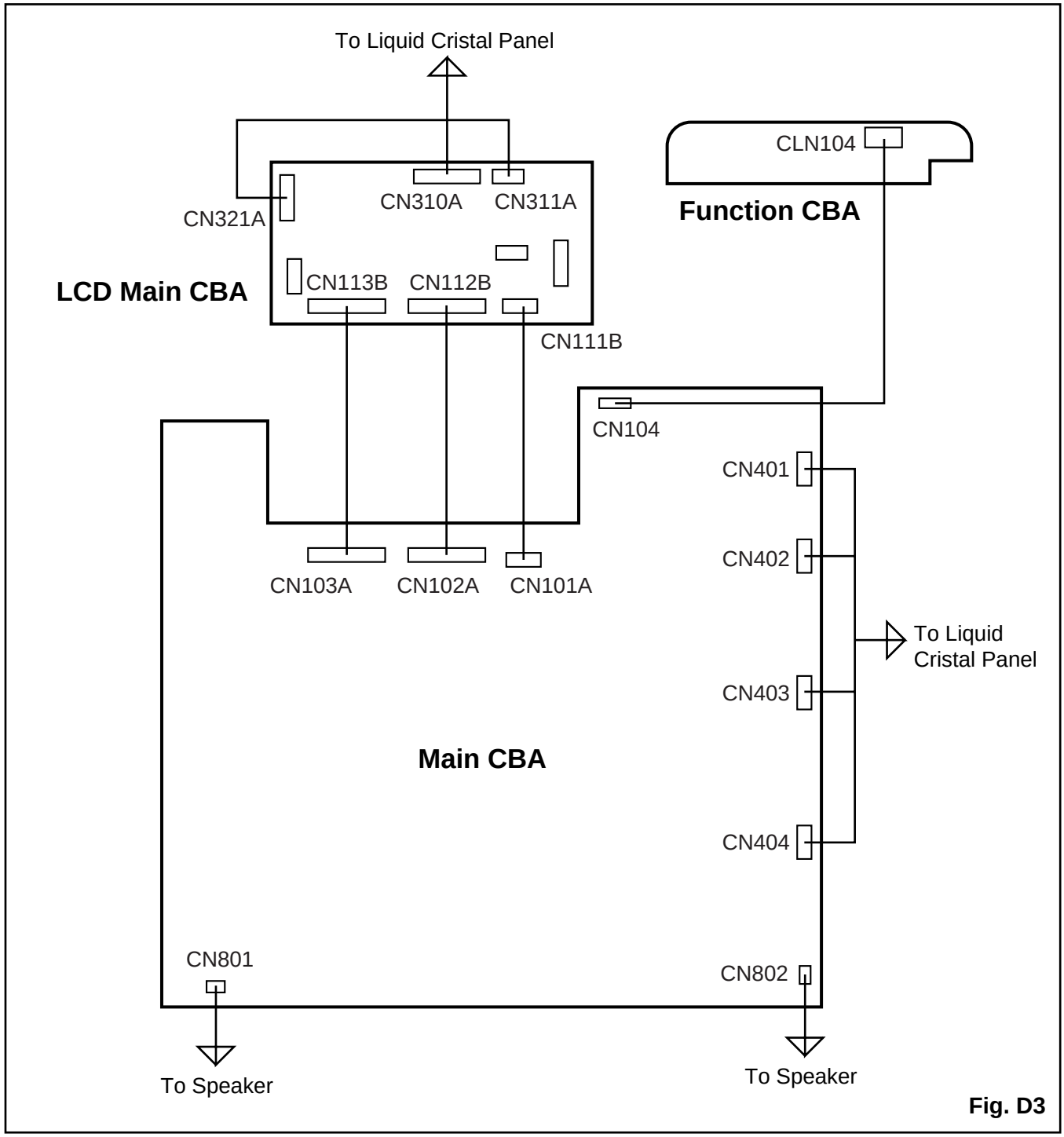

To Liquid Cristal Panel
CLN104
Function CBA
CN321A
CN310A
CN311A
LCD Main CBA
CN113B
CN112B
CN111B
CN104
CN401
CN402
CN103A
CN102A
CN101A
To Liquid
Cristal Panel
CN403
Main CBA
CN404
CN801
CN802
To Speaker
To Speaker

**Fig. D3**

# ELECTRICAL ADJUSTMENT INSTRUCTIONS

**NOTE: CBA AND PWB MEANS PRINTED WIRING BOARD.**

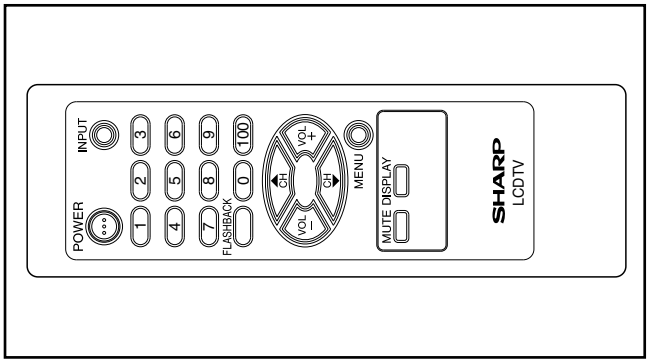
**NOTE:**

Electrical adjustments are required after replacing circuit components and certain mechanical parts. It is important to perform these adjustments only after all repairs and replacements have been completed.

Also, do not attempt these adjustments unless the proper equipment is available.

## Test Equipment Required

1. NTSC Pattern Generator (Color Bar W/White Window, Red Color, Dot Pattern, Gray Scale, Monoscope, Multi-Burst)
2. Remote control unit (attached remote control unit)




3. Color Analyzer
4. DC Voltmeter

## How to set up the service mode:

### Service mode:

1. Turn the power on. (Use main power on the TV unit.)
2. In standby mode, simultaneously press “POWER” button and “MENU” button on the TV unit. Version of micro computer will display on the LCD or display. (Ex: 0001AGP-0.11, 0002AGP-0.14 or 0003AGP-0.17)

## 1. Initial Setting

**General**

Enter the Service mode.

Set the each initial data as shown on table 1 below.

### Table 1: Initial Data

| ITEM | BUTTON (on the service remote control) | DATA VALUE |
|---|---|---|
| BRT | MENU → 1 | 126 |
| CNT | | 198 |
| CLR-R | | 72 |
| CLR-B | | 72 |
| TNT | | 56 |
| V-TNT | | 65 |
| SHR | | 28 |
| S-BRT | MENU → 2 | 126 |
| S-CNT | | 198 |
| S-CLR-R | | 72 |
| S-CLR-B | | 72 |
| S-TNT | | 65 |
| S-SHR | | 28 |
| C-BRT | MENU → 3 | 126 |
| C-CNT | | 198 |
| C-CLR-R | | 67 |
| C-CLR-B | | 72 |
| C-TNT | | 72 |
| C-SHR | | 28 |
| SAIDO | 5 | 143 |
| C-SAIDO | | 143 |
| NORMAL | 0 | 74 |
| DARK | | 150 |
| COR(C/D1) | Vol down → 1 | 512 |
| COG(C/D1) | Vol down → 2 | 512 |
| COB(C/D1) | Vol down → 3 | 512 |
| DR(C/D1) | Vol down → 4 | 130 |
| DG(C/D1) | Vol down → 5 | 132 |
| DB(C/D1) | Vol down → 6 | 116 |
| C-COR(C/D2) | Vol down → 1 | 512 |
| C-COG(C/D2) | Vol down → 2 | 512 |
| C-COB(C/D2) | Vol down → 3 | 512 |
| C-DR(C/D2) | Vol down → 4 | 130 |

| ITEM | BUTTON (on the service remote control) | DATA VALUE |
|---|---|---|
| C-DG(C/D2) | Vol down → 5 | 127 |
| C-DB(C/D2) | Vol down → 6 | 131 |
| 7F | Vol down | FF |
| LANGUAGE | | SPA/FRA |
| STEREOTYP | | MTS |
| ACCESSCODE | | ON |
| BLACKLIGHT | | ON |
| HD | | OFF |
| HRD | | OFF |
| NCM | | OFF |
| ASPECT | | OFF |

## 2. +B Adjustment

**Purpose:** To obtain correct operation.

**Symptom of Misadjustment:** The picture is dark and the unit does not operate correctly.

| Test point | Adj. Point | Mode | Input |
|---|---|---|---|
| TP401(B+) TP300(GND) | VR601 | --- | --- |
| **M. EQ.** | | **Spec.** | |
| DC Voltmeter | | +13.0±0.5V DC. | |

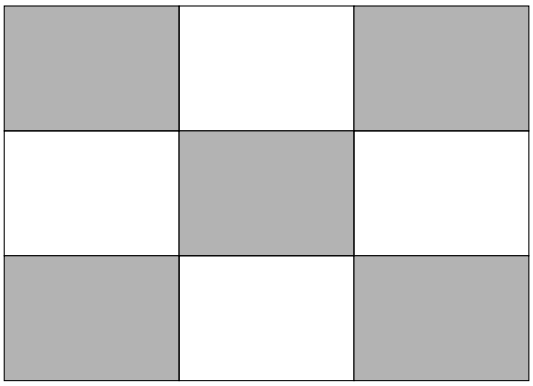
**Note:** TP401, TP300(GND), VR601 --- Main CBA

1. Connect DC Volt Meter to TP401 and TP300(GND).
2. Adjust VR601 so that the voltage of TP401 becomes +13.0±0.5V DC.

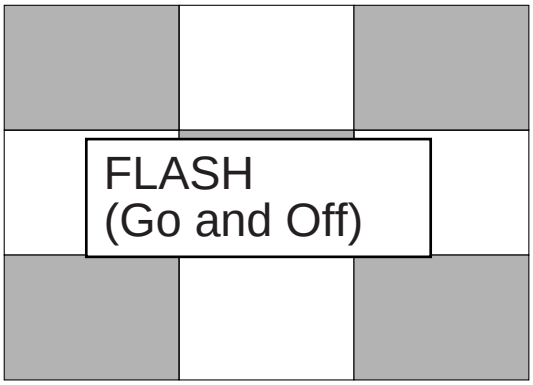
## 3. Flicker Adjustment

**Note:** Use remote control unit

1. Enter the Service mode. (See page 5-1)
2. Press “2” button on the remote control unit. The following screen appears.



3. If Flicker Adjustment is not fit, the screen become the following.




4. Press “CH ▲/▼” buttons on the remote control unit until flash stops.

## 4. TV Reset to Default

To reset software, press “5” button on the remote control unit for at least 5 seconds after pressing “FLASHBACK” button on the remote control unit.

**The following adjustment normally are not attempted in the field. Only when replacing the LCD Panel then adjust as a preparation.**

## 5. White Balance Adjustment

**Purpose:** To mix red, green and blue beams correctly for pure white.

**Symptom of Misadjustment:** White becomes bluish or reddish.

### Method 1

Vary the "RCUTOFF", "BCUTOFF", "RGAIN" and "BGAIN" settings of the adjustment process below.

Adjustment Process

| | | |
|---|---|---|
| RCUTOFF | 0 | Red cut - off adjustment |
| GCUTOFF | 0 | Green cut - off adjustment |
| BCUTOFF | 0 | Blue cut - off adjustment |
| R-GAIN | 0 | White balance |
| G-GAIN | 0 | White balance |
| B-GAIN | 0 | White balance |

1. Receive the black signal (white 40%).

   Adjust the "RCUTOFF" and "BCUTOFF" settings to have the black color temperature as specified.
2. Receive the white 80% signal.

   Adjust two of the "R-GAIN", "G-GAIN" and "B-GAIN" settings in the decreasing direction to be visible white.

   Note: Make sure at least one of the "R-GAIN", "G-GAIN" and "B-GAIN" settings is "0".
3. Check to see if the black and white color temperatures are as specified. If not, repeat the above steps 1 and 2.

### Method 2

| Test point | Adj. Point | Mode | Input |
|---|---|---|---|
| Screen | CH ▲ / ▼ buttons | VIDEO 1<br>VIDEO 2 | White Purity (APL 80% and 40%) |

| M. EQ. | Spec. | |
|---|---|---|
| Pattern Generator, Color analyzer | APL 80% | x (0.282 to 0.302)<br>y (0.297 to 0.317) |
| | APL 40% | x (0.276 to 0.296)<br>y (0.289 to 0.309) |

**Figure**

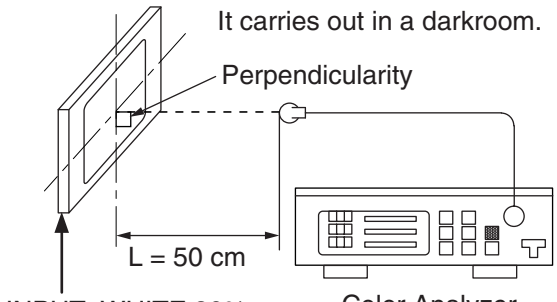



**Fig. 2**

**Note:** Use remote control unit

1. Operate the unit for more than 20 minutes.
2. Input the White Purity (APL 80%).
3. Set the color analyzer to the CHROMA mode and bring the optical receptor to the center on the LCD-Panel surface after zero point calibration as shown above.

   **Note:** The optical receptor must be set perpendicularly to the LCD Panel surface.
4. Enter the Service mode. Press "VOL ▼" button on the remote control unit and select "C/D" mode.
5. When "x" value and "y" value are not within specification, adjust "DB" or "DR". Refer to "1. Initial Setting."
6. Input the White Purity (APL 40%).
7. Press "VOL ▼" button on the remote control unit and select "C/D" mode.
8. When "x" value and "y" value are not within specification, adjust "COB" or "COR". Refer to "1. Initial Setting."
9. Also VIDEO 2 mode.

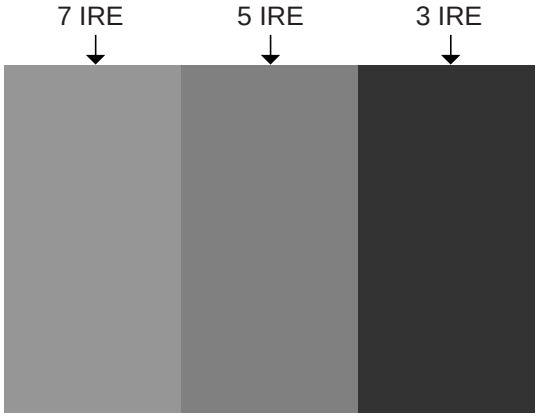
## 6. Sub-Brightness Adjustment

**Purpose:** To mix red, green and blue beams correctly for pure white.

**Symptom of Misadjustment:** White becomes bluish or reddish.

**Confirmation at [VIDEO-1]**

1. Set CG951 to 7/5/3 IRE 3-step grayscale.




TEST PATTERN (7/5/3 IRE)

2. Apply CG951 video signal to VIDEO1 input.
3. Enter the Service mode.
4. Make sure that contrast and brightness controls are set to initial position.
5. Confirm “5 IRE” position was biginning to bright.
6. If “5 IRE” position was bigining to bright, no need to adjust.
7. If “5 IRE” position is not avilable or to be highly brightness, then adjust the following values by using remote control unit. Refer to “1. Initial Setting.”

   RF/VIDEO1: BRT

   VIDEO2: C-BRT

**Confirmation at [VIDEO-2]**

1. Set CG951 to 7/5/3 IRE 3-step grayscale.
2. Apply CG951 video signal to “Y” input.
3. Enter the Service mode.
4. Make sure that contrast and brightness controls are set to initial position.
5. Confirm “5 IRE” position was beginning to bright.
6. If “5 IRE” position was beginning to bright, no need to adjust.
7. If “5 IRE” position is not available or to be highly brightness, then adjust the following values by using remote control unit. Refer to “1. Initial Setting.”

   RF/VIDEO1: BRT

   VIDEO2: C-BRT

# TROUBLESHOOTING

## Table of Contents for the Troubleshooting Flow Charts


| Flow Chart No. | Description | Page |
|---|---|---|
| 1 | The power cannot be turned on. | 6-2 |
| 2 | The fuse blows out. | 6-2 |
| 3 | When the output voltage fluctuates. | 6-2 |
| 4 | When buzz sound can be heard in the vicinity of power circuit. | 6-2 |
| 5 | AL-8V is not outputted. | 6-2 |
| 6 | AL+3.3V is not outputted. | 6-3 |
| 7 | AL+40V is not outputted. | 6-3 |
| 8 | AL+5V is not outputted. | 6-3 |
| 9 | AL+33V is not outputted. | 6-3 |
| 10 | AL+12V is not outputted. | 6-3 |
| 11 | REG+5V(1) is not outputted. | 6-4 |
| 12 | REG+5V(2) is not outputted. | 6-4 |
| 13 | P-ON+3.3V(D) is not outputted. | 6-4 |
| 14 | P-ON+3.3V(A) is not outputted. | 6-4 |
| 15 | P-ON+1.8V(D) is not outputted. | 6-4 |
| 16 | PANEL+24V is not outputted. | 6-5 |
| 17 | PANEL+5.4V is not outputted. | 6-5 |
| 18 | PANEL-12V is not outputted. | 6-5 |
| 19 | PANEL+12V is not outputted. | 6-5 |
| 20 | PANEL+9V is not outputted. | 6-5 |
| 21 | The key operation is not functioning. | 6-6 |
| 22 | No operation is possible from the remote control unit. | 6-6 |
| 23 | Picture does not appear normally. (Tuner input / Video input/S-Video input.) | 6-7 |
| 24 | Picture does not appear normally. (Y / Pb / Pr input.) | 6-7 |
| 25 | Audio is not outputted normally. (Tuner input.) | 6-8 |
| 26 | Audio is not outputted normally. (Audio input terminals.) | 6-8 |


**NOTE: CBA AND PWB MEANS PRINTED WIRING BOARD.**

# 1. POWER SUPPLY SECTION

**FLOW CHART NO.1**

The power cannot be turned on.

↓

Is the fuse (F601) normal?

No → See FLOW CHART No.2 <The fuse blows out.>

↓ Yes

Is normal state restored when once unplugged power cord is plugged again several seconds?

No → Check if there is any leak or short-circuiting on the primary circuit component, and service it if defective. (Q601,Q603.T601,D605,D606,D607,D608,C605, C606,C610,C654)

↓ Yes

Is the AL +3.3V line voltage normal?

No → (same as above)

↓ Yes

Check each rectifying circuit of the secondary circuit and service it if defective.

**FLOW CHART NO.2**

The fuse blows out.

↓

Check the presence that the primary component is leaking or shorted and service it if defective.

Check the presence that the rectifying diode or circuit is shorted in each rectifying circuit of secondary side, and service it if defective.

↓

After servicing, replace the fuse.

**FLOW CHART NO.3**

When the output voltage fluctuates.

↓

Does the photocoupler circuit on the secondary side operate normally?

No → Check IC601,D646,D649 and their periphery, and service it if defective.

↓ Yes

Check IC601,D612,D613,D615 and their periphery, and service it if defective.

**FLOW CHART NO.4**

When buzz sound can be heard in the vicinity of power circuit.

↓

Check if there is any short-circuit on the rectifying diode and the circuit in each rectifying circuit of the secondary side, and service it if defective. (IC603,IC604,D630,D631,D632,D633,D635,D645)

**FLOW CHART NO.5**

AL-8V is not outputted.

↓

Is approximately -8V voltage supplied to the anode of D631?

No → Check D631 and the periphery circuit, and service it if defective.

↓ Yes

Check if their is any leak or short-circuit on the loaded circuit, and service it if defective.

**FLOW CHART NO.6**

AL+3.3V is not outputted.

↓

Is 3.3V voltage supplied to the cathode of D514?

No → Check D635,C637 and their periphery circuit, and service it if defective.

↓ Yes

Check if there is any leak or short-circuit on the loaded circuit and service it if defective.

**FLOW CHART NO.7**

AL+40V is not outputted.

↓

Is approximately 40V voltage supplied to the emitter of Q516?

No → Check D645,D646,C644 and their periphery circuit, and service it if defective.

↓ Yes

Is the voltage of base on Q516 lower than the voltage of emitter on Q516 when turning the power on?

No → Check Q517 and P-ON-H line, and service it if defective.

↓ Yes

Replace Q516.

**FLOW CHART NO.8**

AL+5V is not outputted.

↓

Is 5V voltage supplied to the cathode of D633?

No → Check D633,C635 and their periphery circuit, and service it if defective.

↓ Yes

Check if there is any leak or short-circuit on the loaded circuit and service it if defective.

**FLOW CHART NO.9**

AL+33V is not outputted.

↓

Is approximately 40V voltage supplied to the emitter of Q516?

No → See FLOW CHART No.7

↓ Yes

Check D641,C648,C649,R658 and their periphery circuit, and service it if defective.

**FLOW CHART NO.10**

AL+12V is not outputted.

↓

Is approximately 12V voltage supplied to the cathode of D630?

No → Check D630,D632 and their periphery circuit, and service it if defective.

↓ Yes

Is 12V voltage supplied to the emitter of Q427?

No → Check C634,C636,L630 and their periphery circuit, and service it if defective.

↓ Yes

Is the voltage of base on Q427 lower than the voltage of emitter on Q427 when turning the power on?

No → Check Q401 and BACKLIGHT-SW line, and service it if defective.

↓ Yes

Replace Q427.

**FLOW CHART NO.11**

REG+5V(1) is not outputted.

↓

Is approximately 12V voltage supplied to Pin(1) of IC604? → No → See FLOW CHART No.9

↓ Yes

Check IC604,C603 and their periphery circuit, and service it if defective.

**FLOW CHART NO.12**

REG+5V(2) is not outputted.

↓

Is 7.4V voltage supplied to Pin(1) of IC603? → No → See FLOW CHART No.8

↓ Yes

Check IC603,C673 and their periphery circuit, and service it if defective.

**FLOW CHART NO.13**

P-ON+3.3V(D) is not outputted.

↓

Is approximately 4.7V voltage supplied to Pin(1) of IC502? → No → See FLOW CHART No.6

↓ Yes

Check IC502,IC505 and there periphery circuit service and it if defective.

**FLOW CHART NO.14**

P-ON+3.3V(A) is not outputted.

↓

Is 4.7V voltage supplied to Pin(1) of IC504? → No → See FLOW CHART No.6

↓ Yes

Check IC504 and the periphery circuit, and service it if defective.

**FLOW CHART NO.15**

P-ON+1.8V(D) is not outputted.

↓

Is 3.5V voltage supplied to Pin(1) of IC503? → No → See FLOW CHART No.6

↓ Yes

Check IC503 and the periphery circuit, and service it if defective.

**FLOW CHART NO.16**

PANEL+24V is not outputted.

↓

Is approximately 40V voltage supplied to the collector of Q501?

No → See FLOW No.7

↓ Yes

Check Q501,Q502,Q511 and their periphery circuit, and service it if defective.

**FLOW CHART NO.17**

PANEL+5.4V is not outputted.

↓

Is approximately 12V voltage supplied to the collector of Q503?

No → See FLOW No.10

↓ Yes

Check Q503,Q504,Q514 and their periphery circuit, and service it if defective.

**FLOW CHART NO.18**

PANEL-12V is not outputted.

↓

Is approximately -8V voltage supplied to the emitter of Q505?

No → See FLOW No.5

↓ Yes

Check Q505 and the periphery circuit, and service it if defective.

**FLOW CHART NO.19**

PANEL+12V is not outputted.

↓

Is approximately 12V voltage supplied to the collector of Q515?

No → See FLOW No.10

↓ Yes

Check Q515,Q516,Q517 and their periphery circuit, and service it if defective.

**FLOW CHART NO.20**

PANEL+9V is not outputted.

↓

Is approximately 12V voltage supplied to Pin(1) of IC506?

No → See FLOW No.19

↓ Yes

Check IC506 and their periphery circuit, and service it if defective.

**FLOW CHART NO.21**

The key operation is not functioning.

↓

Are the contact point and installation state of the key switches (SW101,SW102,SW103,SW104,SW105, SW107,SW116) normal?

No → Re-install the switches (SW101,SW102,SW103, SW104,SW105,SW107,SW116) correctly or replace the poor switch.

↓ Yes

When pressing each switches (SW101,SW102, SW103,SW104,SW105,SW107,SW116) do the voltage of each pin of CN102A (shown below) increase?
SW101,102,103,104,105,107 : CN102A PIN 6
SW116 : CN102A PIN 7

No → Check the switches (SW101,SW102,SW103,SW104, SW105,SW107,SW116) and their periphery, and service it if defective.

↓ Yes

Replace LCD MAIN CBA UNIT.

**FLOW CHART NO.22**

No operation is possible from the remote control unit.

↓

Operation is possible from the remote control unit.

↓ Yes

Is 3.3 voltage supplied to Pin(3) terminal of the infrared remote control receiver (RCV101)?

No → Check P-ON+3.3V(D) line and service it if defective.

↓ Yes

Is the "L" pulse sent out Pin(1) terminal of receiver (RCV101) when the infrared remote control is activated?

No → Replace the infrared remote control receiver (RCV101) or the remote control unit.

↓ Yes

Is the "L" pulse supplied to the Pin(1) of CN102A?

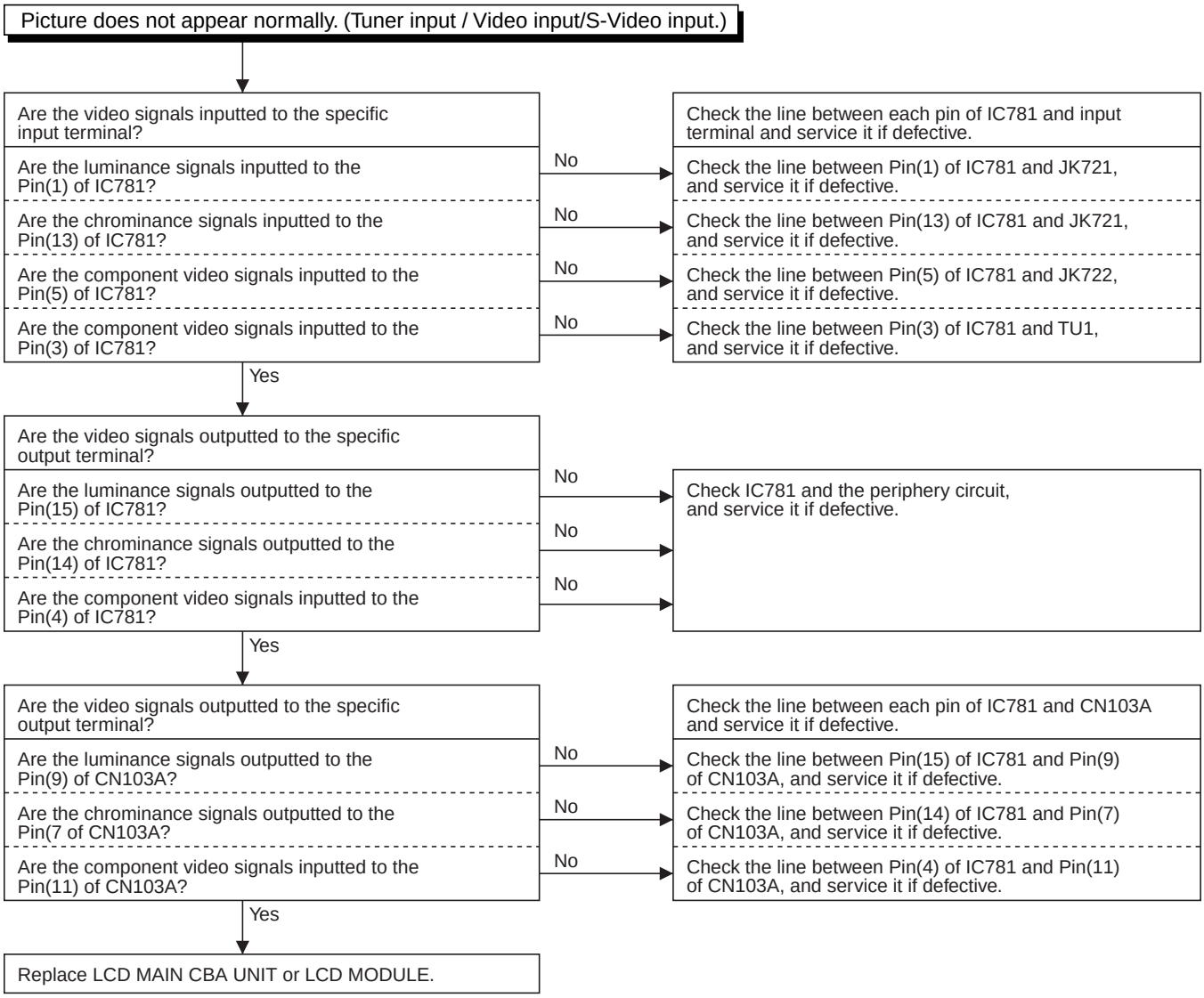
No → Check the line between Pin(1) terminal of receiver (RCV101) and Pin(1) of CN102A , and service it if defective.

↓ Yes

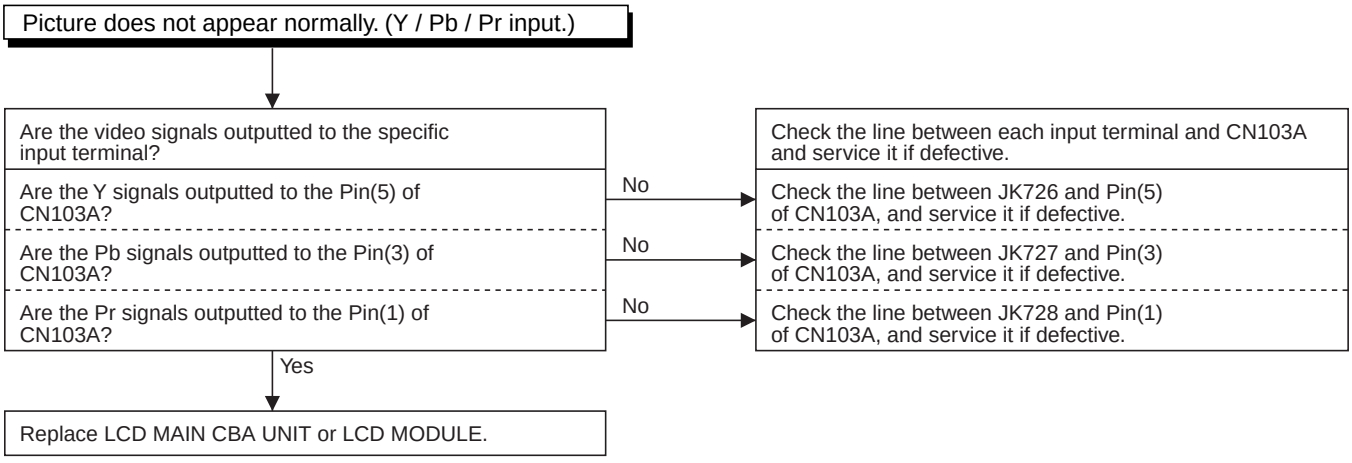
Replace LCD MAIN CBA UNIT.

# 2. VIDEO SIGNAL SECTION

**FLOW CHART NO.23**

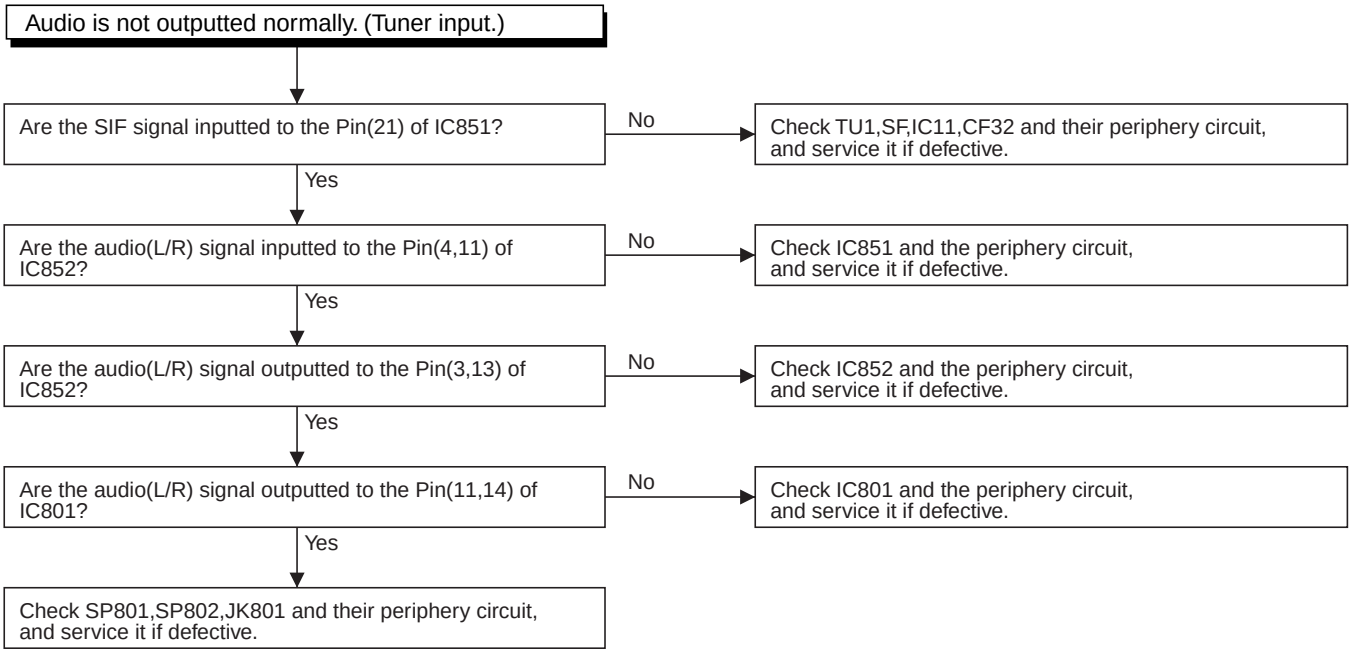

Picture does not appear normally. (Tuner input / Video input/S-Video input.)
Are the video signals inputted to the specific input terminal?
Check the line between each pin of IC781 and input terminal and service it if defective.
Are the luminance signals inputted to the Pin(1) of IC781?
No
Check the line between Pin(1) of IC781 and JK721, and service it if defective.
Are the chrominance signals inputted to the Pin(13) of IC781?
No
Check the line between Pin(13) of IC781 and JK721, and service it if defective.
Are the component video signals inputted to the Pin(5) of IC781?
No
Check the line between Pin(5) of IC781 and JK722, and service it if defective.
Are the component video signals inputted to the Pin(3) of IC781?
No
Check the line between Pin(3) of IC781 and TU1, and service it if defective.
Yes
Are the video signals outputted to the specific output terminal?
Are the luminance signals outputted to the Pin(15) of IC781?
No
Check IC781 and the periphery circuit, and service it if defective.
Are the chrominance signals outputted to the Pin(14) of IC781?
No
Are the component video signals inputted to the Pin(4) of IC781?
No
Yes
Are the video signals outputted to the specific output terminal?
Check the line between each pin of IC781 and CN103A and service it if defective.
Are the luminance signals outputted to the Pin(9) of CN103A?
No
Check the line between Pin(15) of IC781 and Pin(9) of CN103A, and service it if defective.
Are the chrominance signals outputted to the Pin(7 of CN103A?
No
Check the line between Pin(14) of IC781 and Pin(7) of CN103A, and service it if defective.
Are the component video signals inputted to the Pin(11) of CN103A?
No
Check the line between Pin(4) of IC781 and Pin(11) of CN103A, and service it if defective.
Yes
Replace LCD MAIN CBA UNIT or LCD MODULE.

**FLOW CHART NO.24**

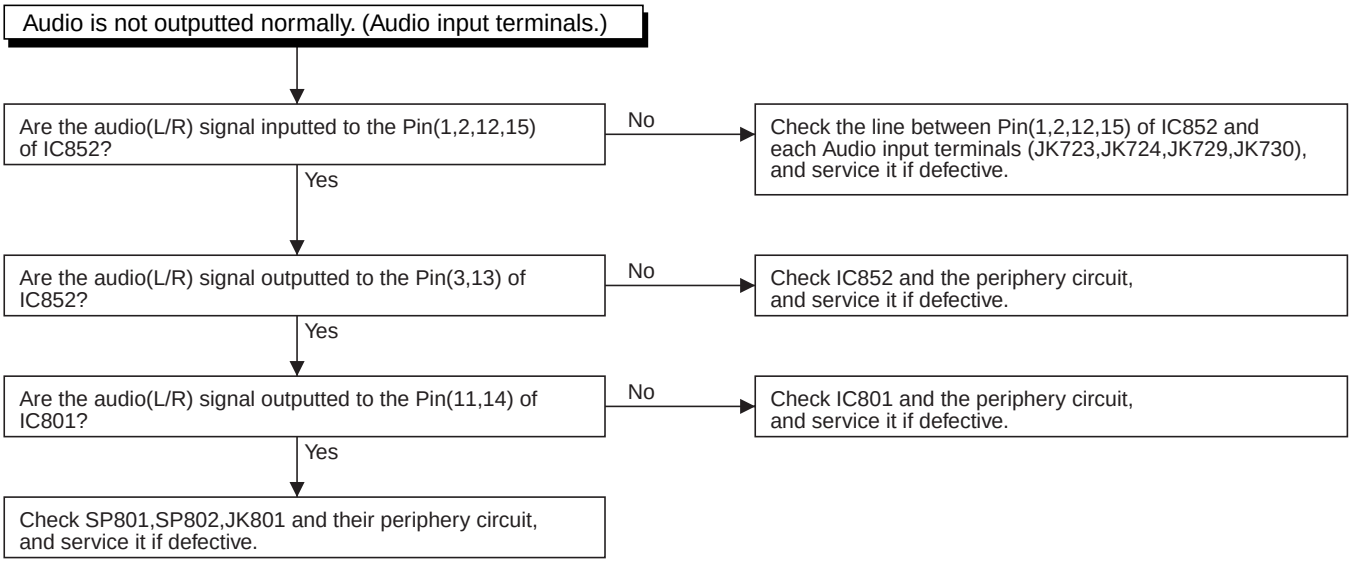

Picture does not appear normally. (Y / Pb / Pr input.)
Are the video signals outputted to the specific input terminal?
Check the line between each input terminal and CN103A and service it if defective.
Are the Y signals outputted to the Pin(5) of CN103A?
No
Check the line between JK726 and Pin(5) of CN103A, and service it if defective.
Are the Pb signals outputted to the Pin(3) of CN103A?
No
Check the line between JK727 and Pin(3) of CN103A, and service it if defective.
Are the Pr signals outputted to the Pin(1) of CN103A?
No
Check the line between JK728 and Pin(1) of CN103A, and service it if defective.
Yes
Replace LCD MAIN CBA UNIT or LCD MODULE.

# 3. AUDIO SIGNAL SECTION

**FLOW CHART NO.25**

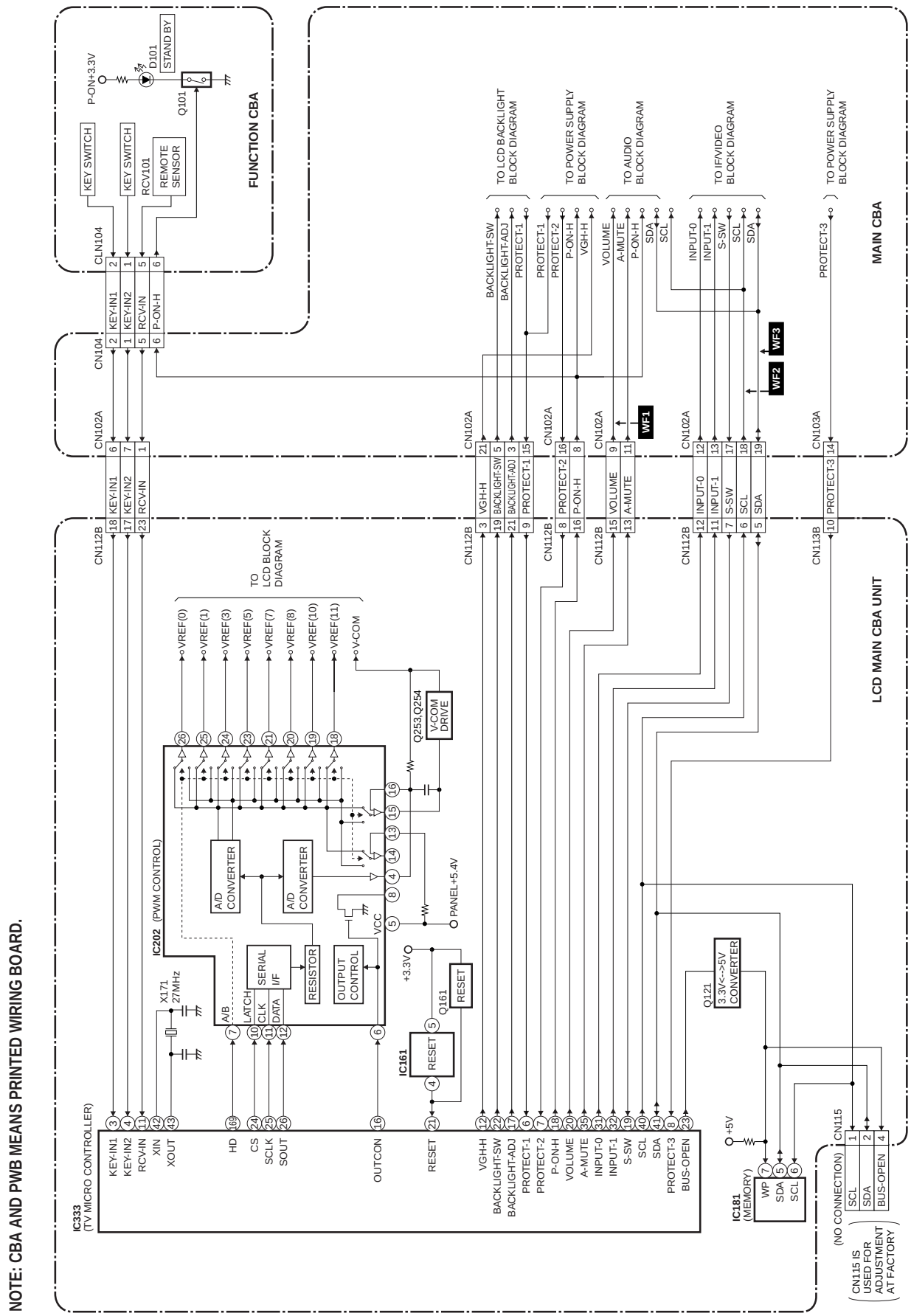

Audio is not outputted normally. (Tuner input.)
Are the SIF signal inputted to the Pin(21) of IC851?
No
Check TU1,SF,IC11,CF32 and their periphery circuit, and service it if defective.
Yes
Are the audio(L/R) signal inputted to the Pin(4,11) of IC852?
No
Check IC851 and the periphery circuit, and service it if defective.
Yes
Are the audio(L/R) signal outputted to the Pin(3,13) of IC852?
No
Check IC852 and the periphery circuit, and service it if defective.
Yes
Are the audio(L/R) signal outputted to the Pin(11,14) of IC801?
No
Check IC801 and the periphery circuit, and service it if defective.
Yes
Check SP801,SP802,JK801 and their periphery circuit, and service it if defective.

**FLOW CHART NO.26**


Audio is not outputted normally. (Audio input terminals.)
Are the audio(L/R) signal inputted to the Pin(1,2,12,15) of IC852?
No
Check the line between Pin(1,2,12,15) of IC852 and each Audio input terminals (JK723,JK724,JK729,JK730), and service it if defective.
Yes
Are the audio(L/R) signal outputted to the Pin(3,13) of IC852?
No
Check IC852 and the periphery circuit, and service it if defective.
Yes
Are the audio(L/R) signal outputted to the Pin(11,14) of IC801?
No
Check IC801 and the periphery circuit, and service it if defective.
Yes
Check SP801,SP802,JK801 and their periphery circuit, and service it if defective.

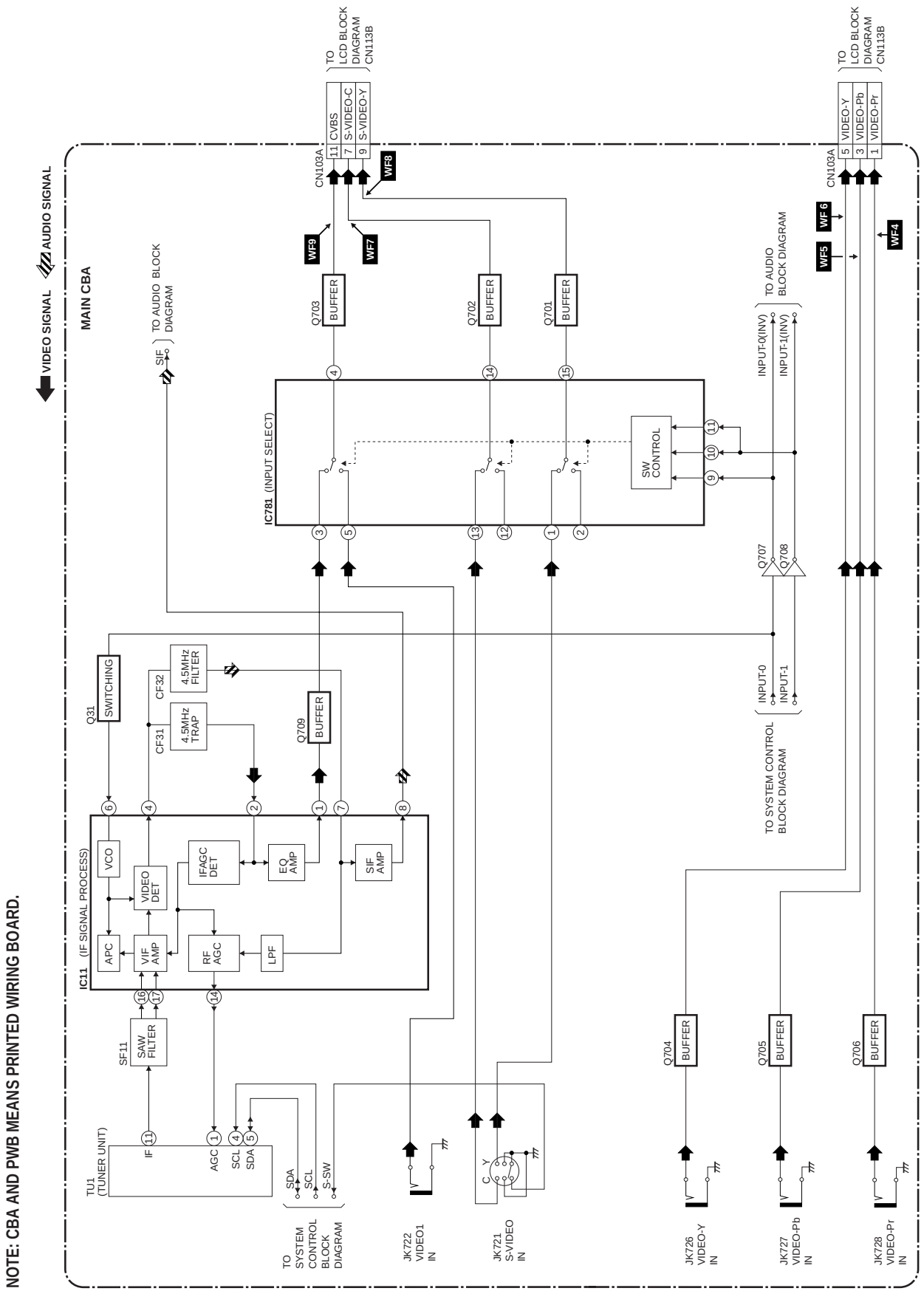
# BLOCK DIAGRAMS

## System Control Block Diagram



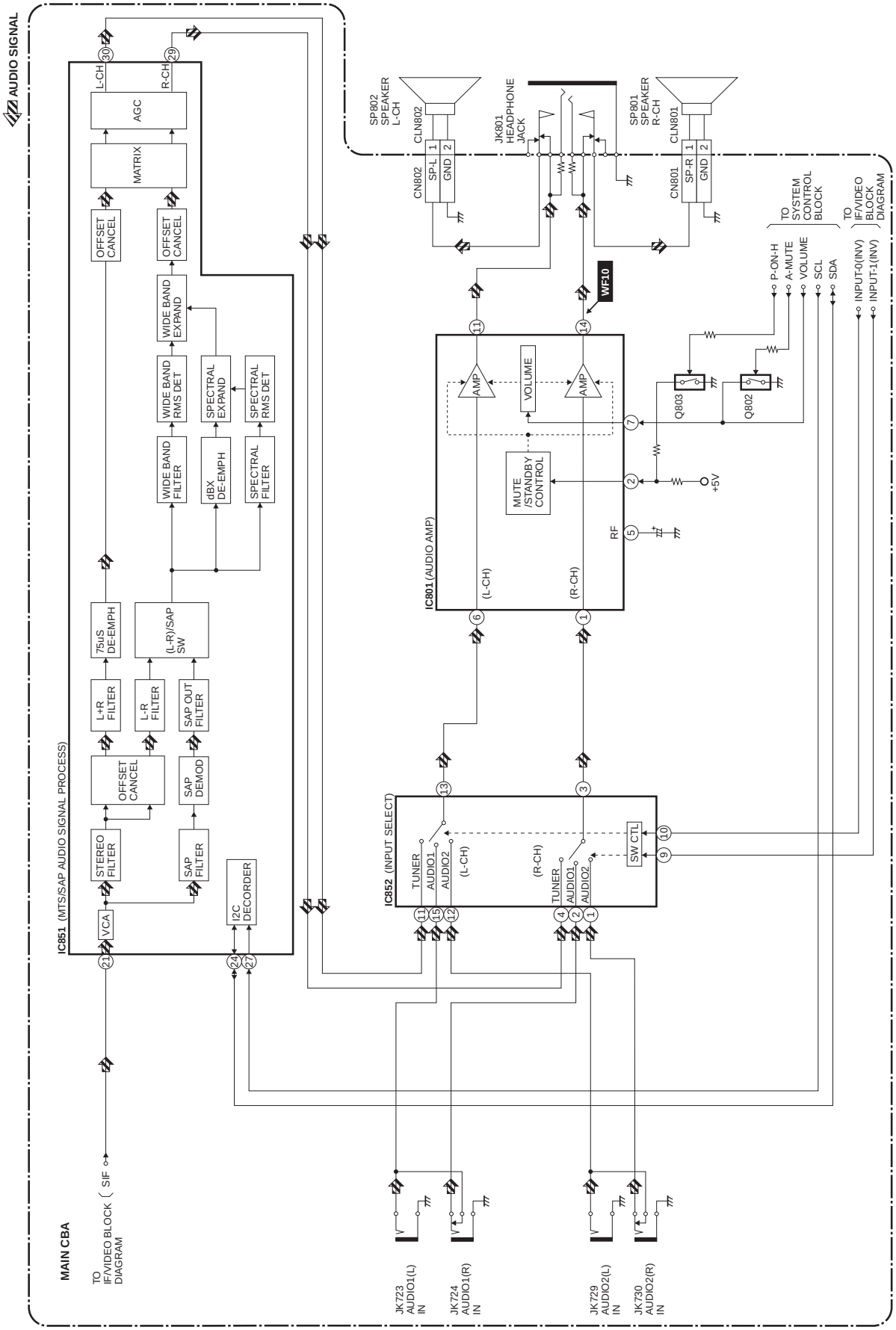

**NOTE: CBA AND PWB MEANS PRINTED WIRING BOARD.**

# IF/Video Block Diagram



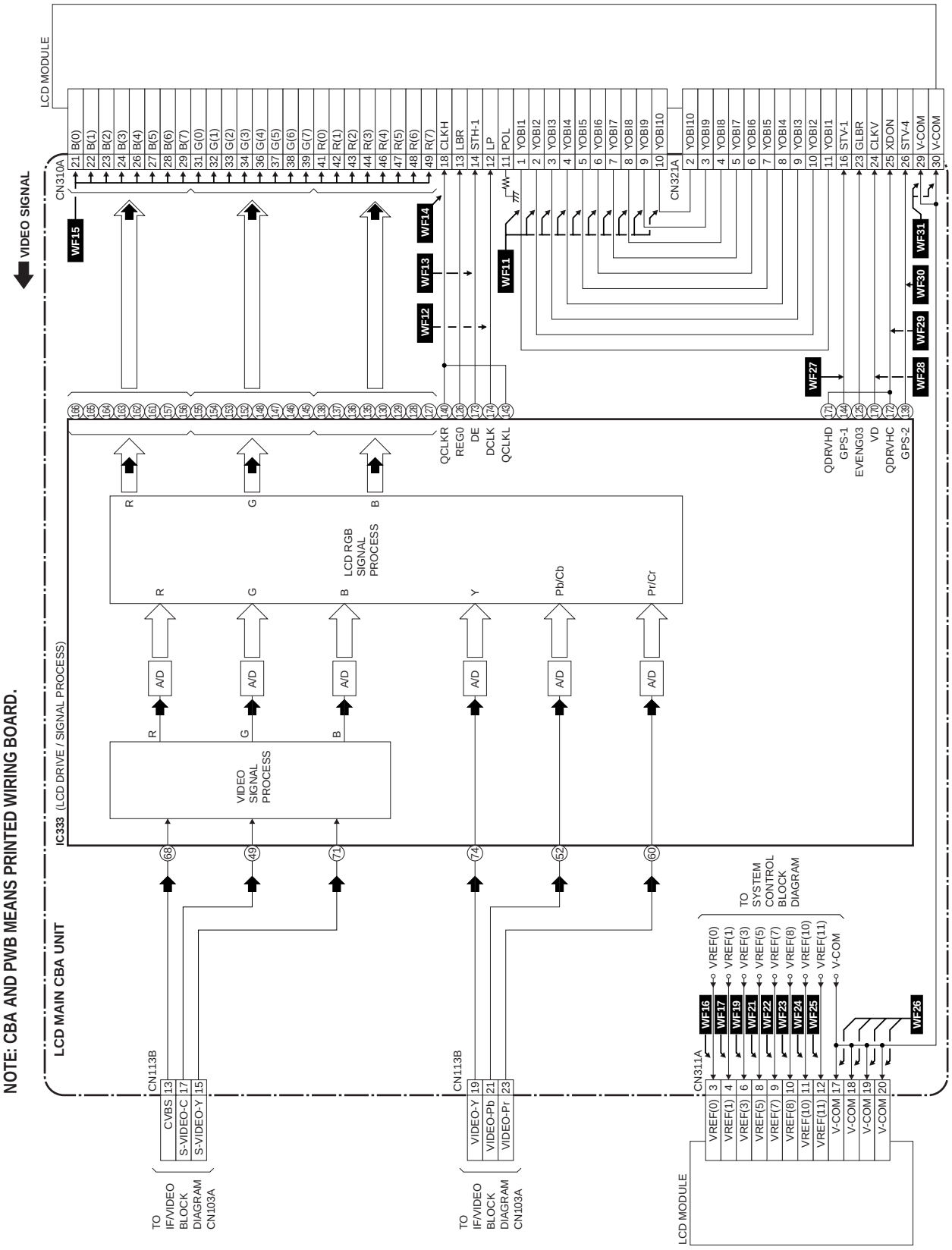

NOTE: CBA AND PWB MEANS PRINTED WIRING BOARD.

# Audio Block Diagram

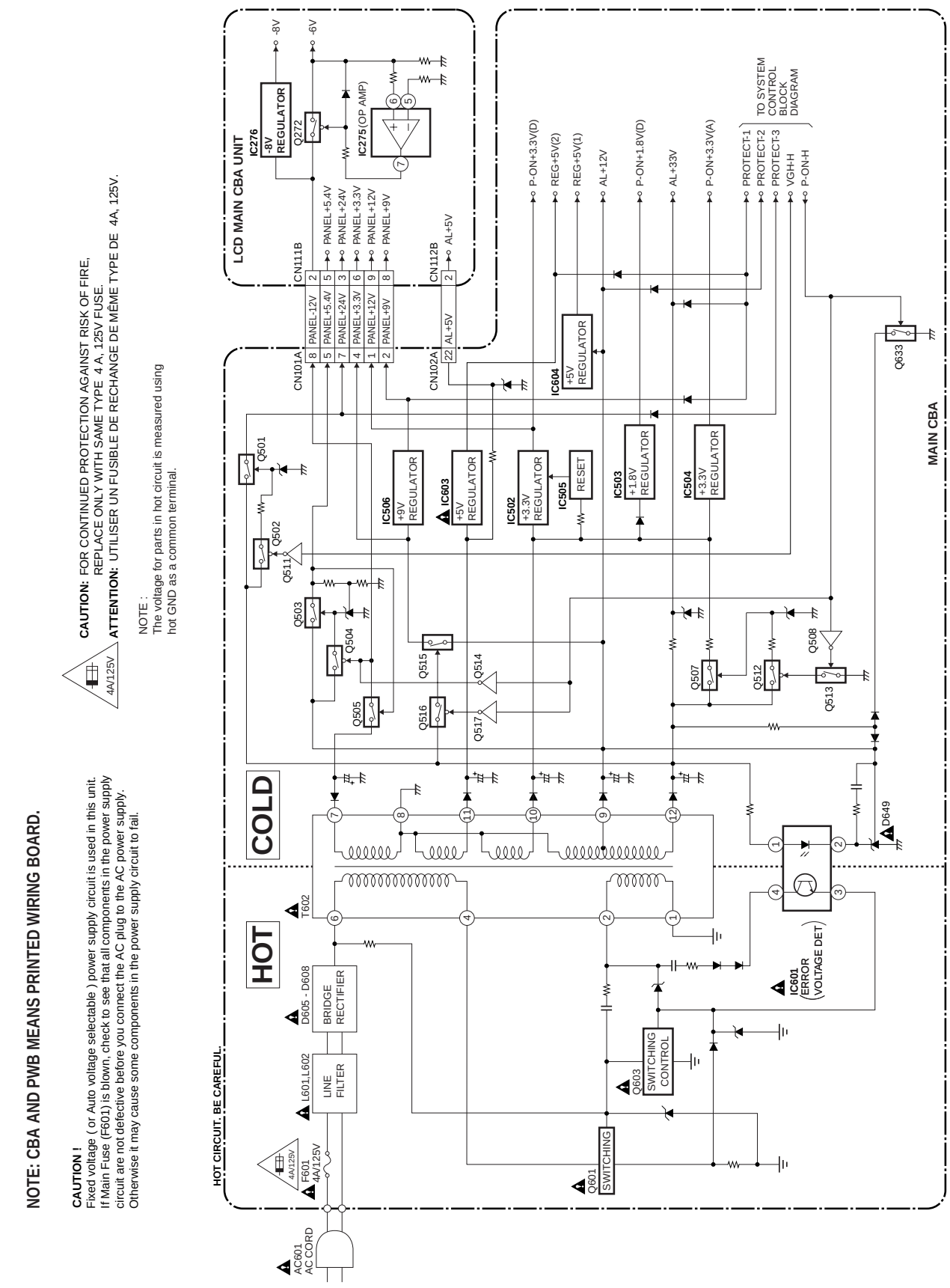



**NOTE: CBA AND PWB MEANS PRINTED WIRING BOARD.**

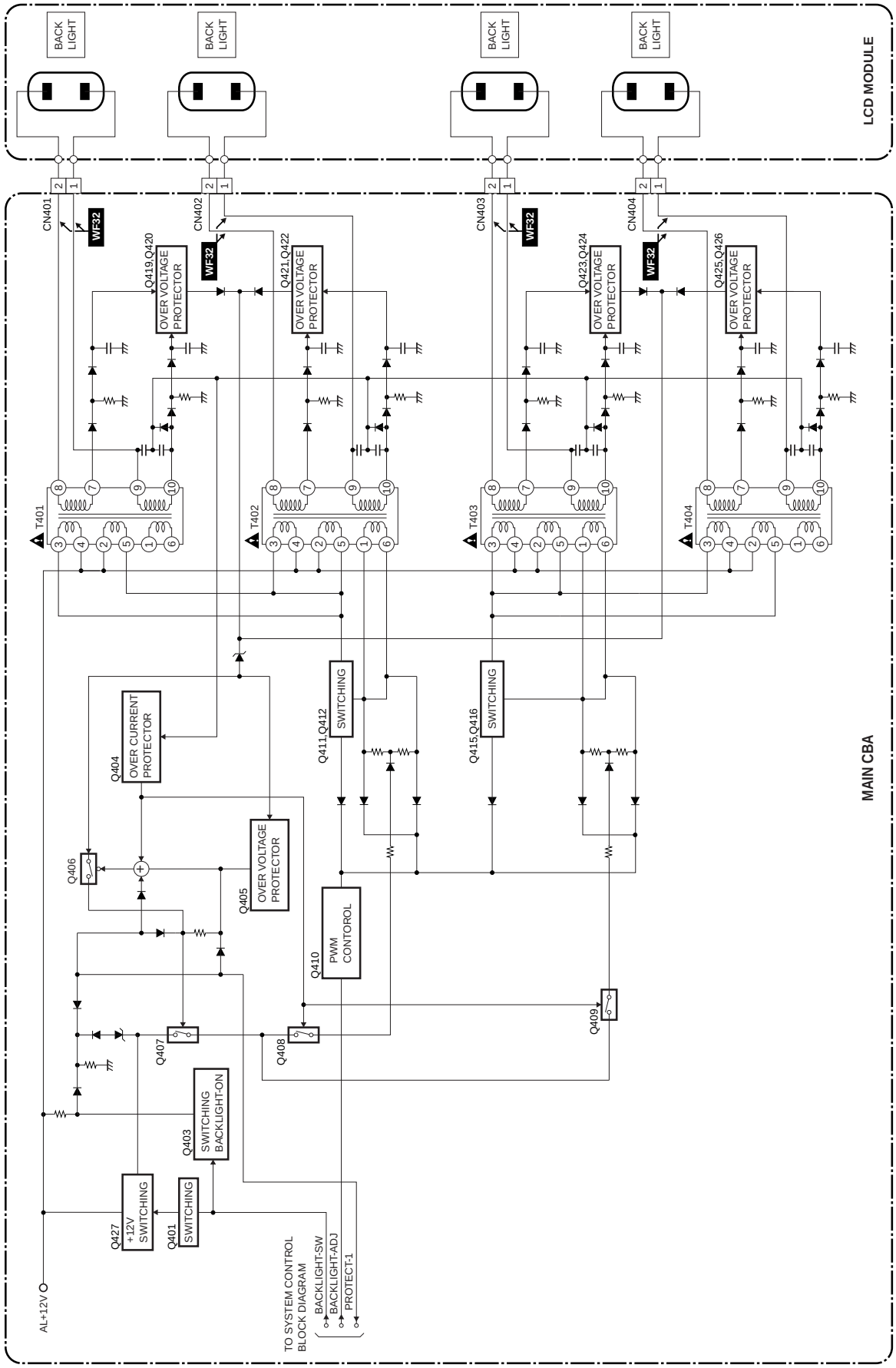
# LCD Block Diagram



# Power Supply Block Diagram



# LCD Backlight Block Diagram




NOTE: CBA AND PWB MEANS PRINTED WIRING BOARD.

# SCHEMATIC DIAGRAMS / CBA'S AND TEST POINTS

**NOTE: CBA AND PWB MEANS PRINTED WIRING BOARD.**

## Standard Notes

Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the mark " ⚠ " in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

### Note:

1. Do not use the part number shown on these drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since these drawings were prepared.
2. All resistance values are indicated in ohms ($K=10^3$, $M=10^6$).
3. Resistor wattages are 1/4W or 1/6W unless otherwise specified.
4. All capacitance values are indicated in μF ($P=10^{-6}$μF).
5. All voltages are DC voltages unless otherwise specified.

### Note of Capacitors:

ML --- Mylar Cap. PP --- Metallized Film Cap. SC --- Semiconductor Cap. L --- Low Leakage type

### Temperature Characteristics of Capacitors are noted with the following:

B --- ±10% CH --- 0±60ppm/°C CSL --- +350~-1000ppm/°C

### Tolerance of Capacitors are noted with the following:

Z --- +80~-20%

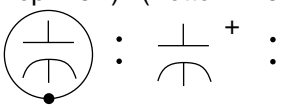
### Note of Resistors:

CEM --- Cement Res. MTL --- Metal Res. F --- Fuse Res.

**Capacitors and transistors are represented by the following symbols.**

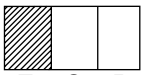
CBA Symbols

(Top View) (Bottom View)



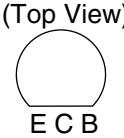
Electrolytic Capacitor

(Bottom View)




Transistor or Digital Transistor

(Top View)




NPN Transistor

(Top View)

PNP Transistor

(Top View)

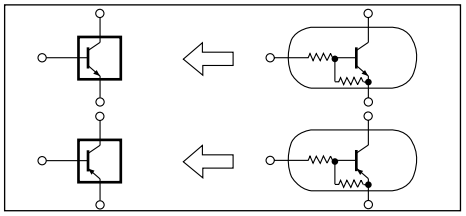
NPN Digital Transistor

(Top View)

PNP Digital Transistor

Schematic Diagram Symbols

Digital Transistor



## LIST OF CAUTION, NOTES, AND SYMBOLS USED IN THE SCHEMATIC DIAGRAMS ON THE FOLLOWING PAGES:

1. **CAUTION:** FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE_A,_V FUSE.
   **ATTENTION:** UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE DE_A,_V.

2. **CAUTION:**
   Fixed Voltage (or Auto voltage selectable) power supply circuit is used in this unit.

   If Main Fuse (F601) is blown, first check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

3. **Note:**

(1) Do not use the part number shown on the drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since the drawings were prepared.

(2) To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list section of the service manual.

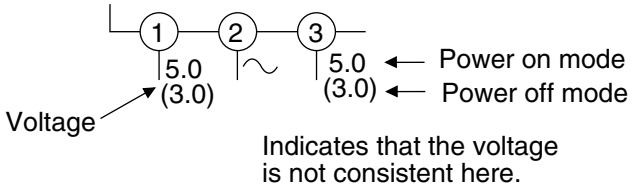
4. **Wire Connectors**

(1) Prefix symbol "CN" means "connector" (can disconnect and reconnect).

(2) Prefix symbol "CL" means "wire-solder holes of the PCB" (wire is soldered directly).

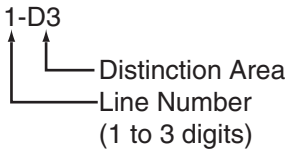
5. **Note:** Mark "●" is a leadless (chip) component.

6. **Voltage indications on the schematics are as shown below:**
   Plug the TV power cord into a standard AC outlet.:

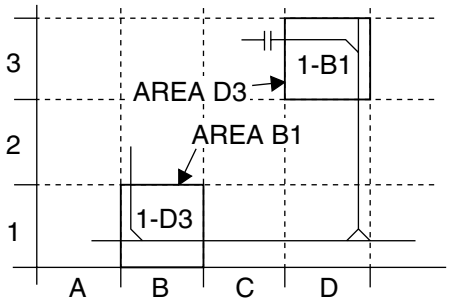



Unit: Volts

7. **How to read converged lines**




Examples:
1. "1-D3" means that line number "1" goes to area "D3".
2. "1-B1" means that line number "1" goes to area "B1".




8. **Test Point Information**

: Indicates a test point with a jumper wire across a hole in the PCB.

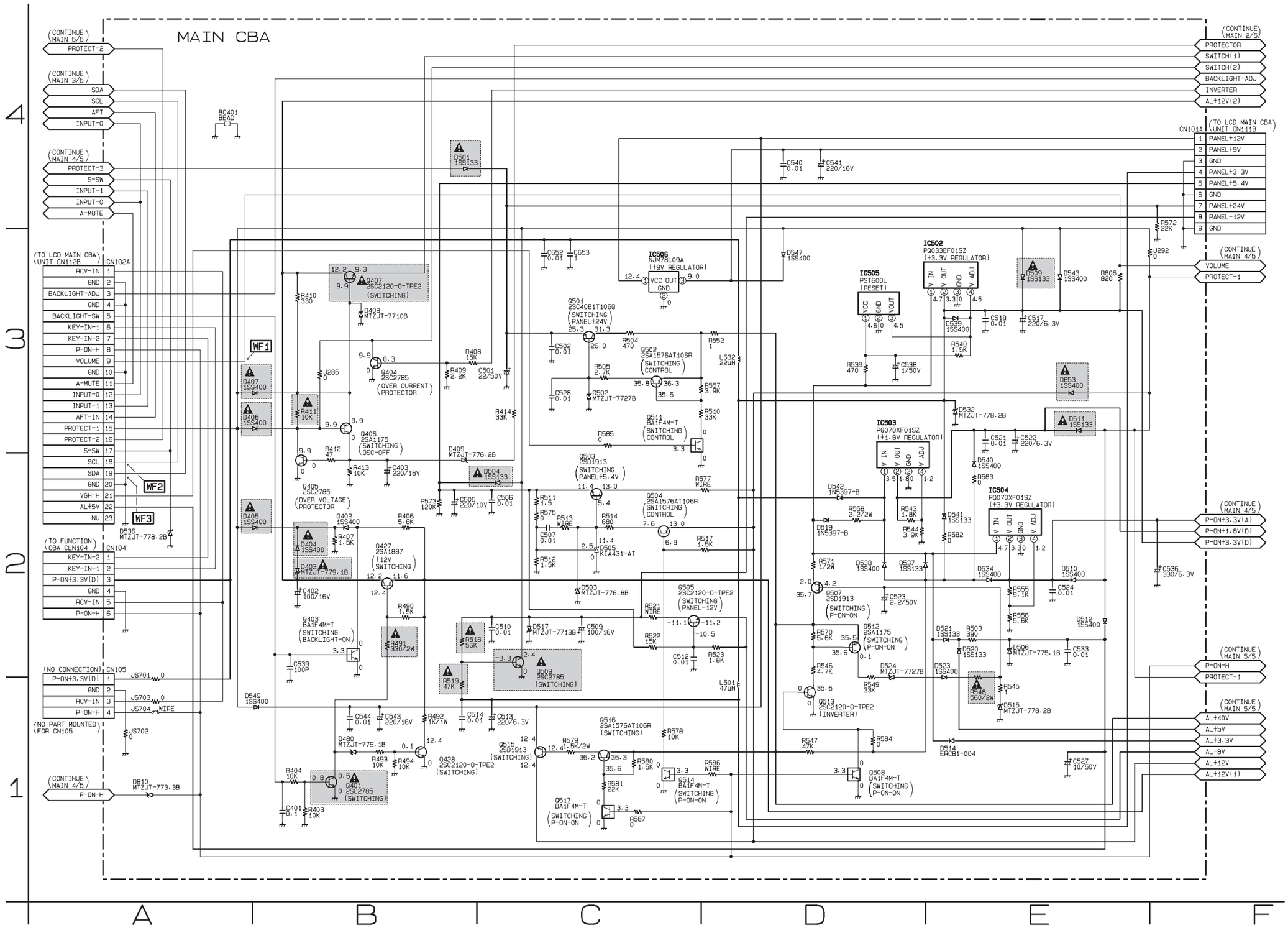
: Used to indicate a test point with a component lead on foil side.

: Used to indicate a test point with no test pin.

: Used to indicate a test point with a test pin.

# Main 1/5 Schematic Diagram

**NOTE: CBA AND PWB MEANS PRINTED WIRING BOARD.**

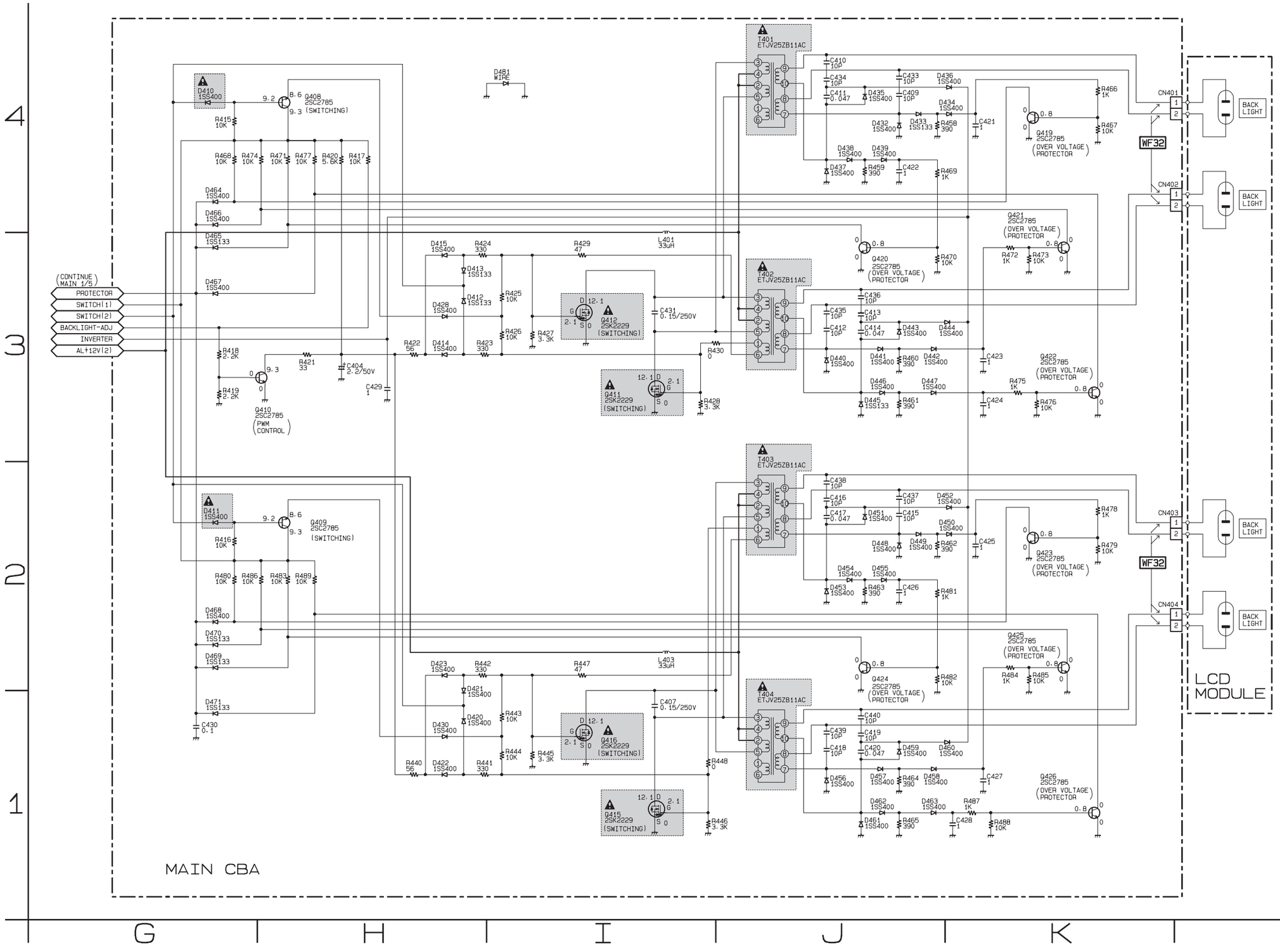



MAIN 1/5

| Ref No. | Position |
|---|---|
| ICS | |
| IC502 | E-3 |
| IC503 | D-3 |
| IC504 | E-2 |
| IC505 | D-3 |
| IC506 | C-3 |
| TRANSISTORS | |
| Q401 | B-1 |
| Q403 | B-2 |
| Q404 | B-3 |
| Q405 | B-2 |
| Q406 | B-3 |
| Q407 | B-3 |
| Q427 | B-2 |
| Q428 | B-1 |
| Q501 | C-3 |
| Q502 | C-3 |
| Q503 | C-2 |
| Q504 | C-2 |
| Q505 | C-2 |
| Q507 | D-2 |
| Q508 | D-1 |
| Q509 | C-2 |
| Q511 | C-3 |
| Q512 | D-2 |
| Q513 | D-1 |
| Q514 | C-1 |
| Q515 | C-1 |
| Q516 | C-1 |
| Q517 | C-1 |
| CONNECTORS | |
| CN101A | F-4 |
| CN102A | A-3 |
| CN104 | A-2 |
| CN105 | A-1 |

# Main 2/5 Schematic Diagram

**NOTE: CBA AND PWB MEANS PRINTED WIRING BOARD.**

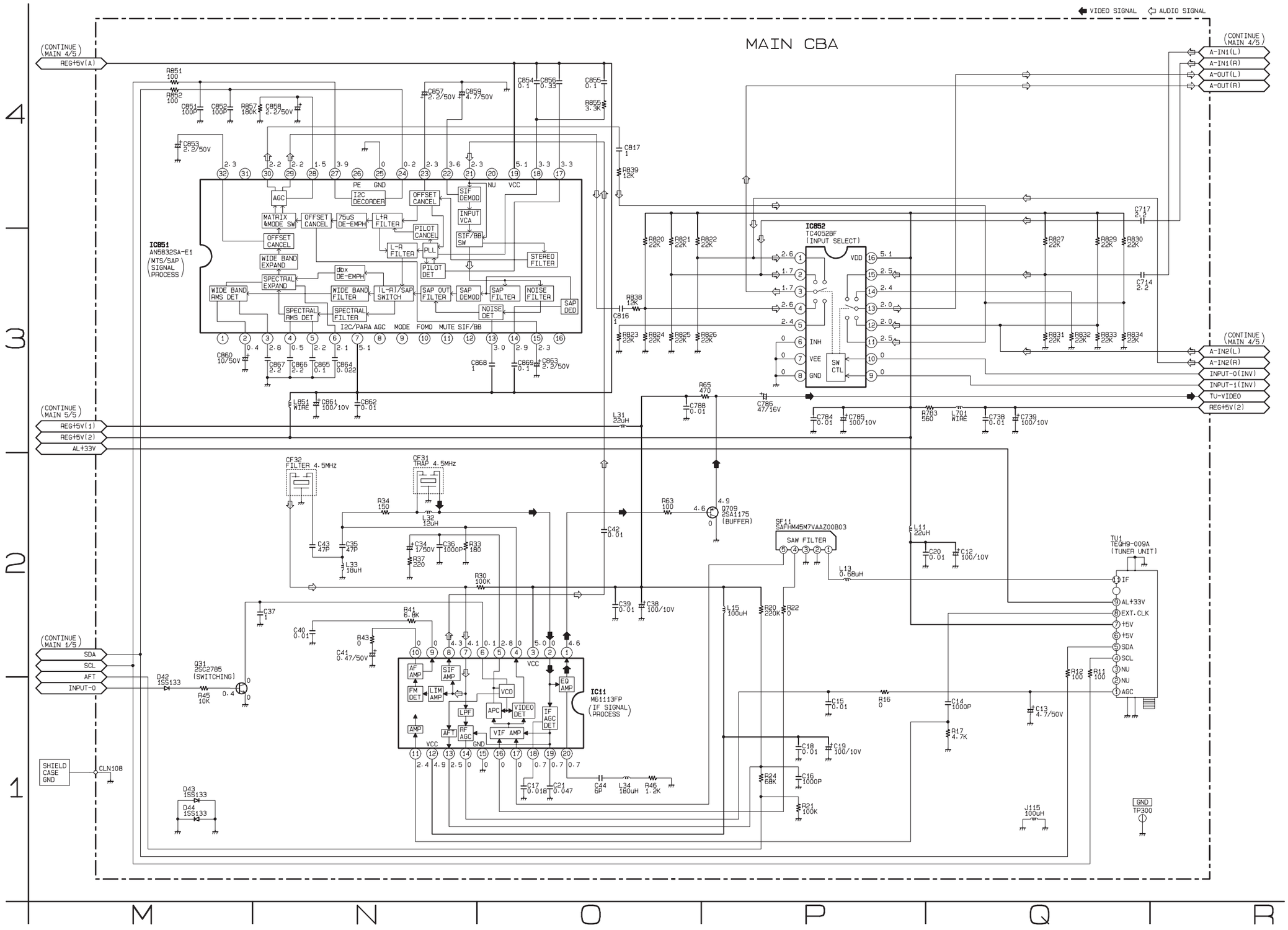



MAIN 2/5

| Ref No. | Position |
|---|---|
| TRANSISTORS | |
| Q408 | H-4 |
| Q409 | H-2 |
| Q410 | H-3 |
| Q411 | I-3 |
| Q412 | I-3 |
| Q415 | I-1 |
| Q416 | I-1 |
| Q419 | K-4 |
| Q420 | J-3 |
| Q421 | K-3 |
| Q422 | K-3 |
| Q423 | K-2 |
| Q424 | J-2 |
| Q425 | K-2 |
| Q426 | K-1 |
| CONNECTORS | |
| CN401 | K-4 |
| CN402 | K-4 |
| CN403 | K-2 |
| CN404 | K-2 |

# Main 3/5 Schematic Diagram

**NOTE: CBA AND PWB MEANS PRINTED WIRING BOARD.**

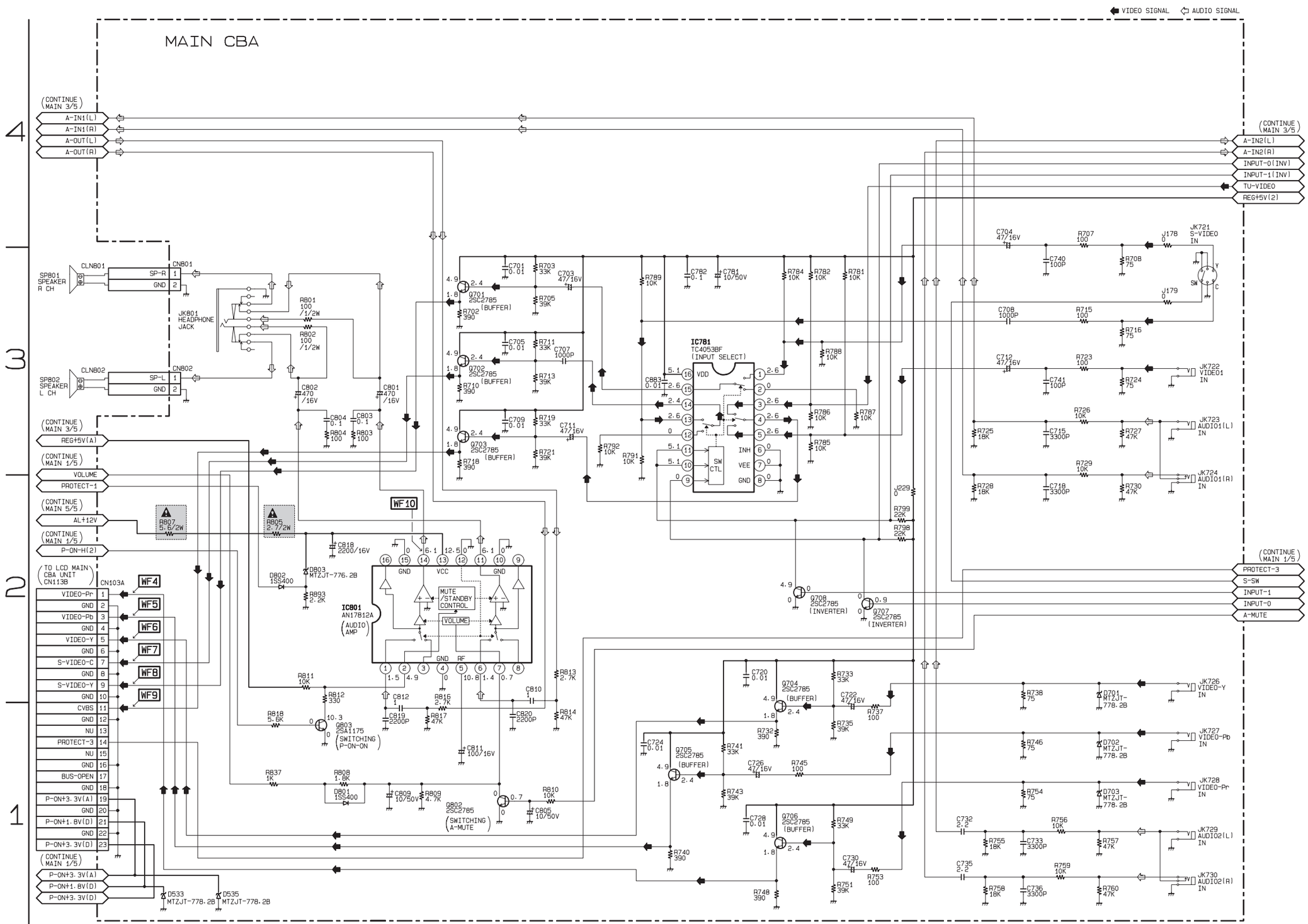



MAIN 3/5

| Ref No. | Position |
|---|---|
| ICS | |
| IC11 | O-1 |
| IC851 | M-3 |
| IC852 | P-3 |
| TRANSISTORS | |
| Q31 | M-1 |
| Q709 | P-2 |
| TEST POINT | |
| TP300 | Q-1 |

# Main 4/5 Schematic Diagram

**NOTE: CBA AND PWB MEANS PRINTED WIRING BOARD.**




MAIN 4/5

| Ref No. | Position |
|---|---|
| ICS | |
| IC781 | U-3 |
| IC801 | T-2 |
| TRANSISTORS | |
| Q701 | T-3 |
| Q702 | T-3 |
| Q703 | T-3 |
| Q704 | V-1 |
| Q705 | U-1 |
| Q706 | V-1 |
| Q707 | V-2 |
| Q708 | V-2 |
| Q802 | T-1 |
| Q803 | T-1 |
| CONNECTORS | |
| CN103A | S-2 |
| CN801 | S-3 |
| CN802 | S-3 |

# Main 5/5 Schematic Diagram

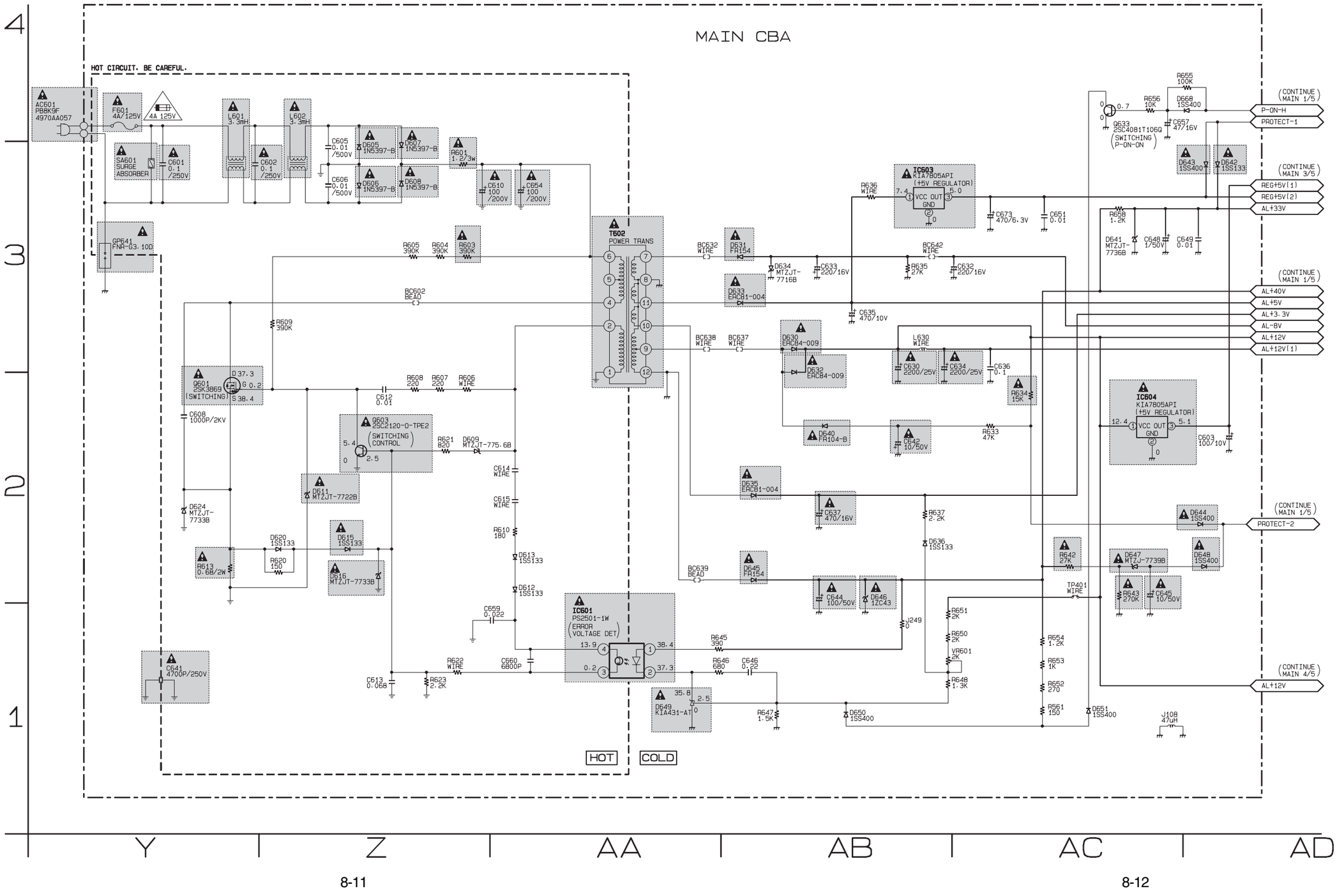
**CAUTION !**
Fixed voltage ( or Auto voltage selectable ) power supply circuit is used in this unit.
If Main Fuse (F601) is blown, check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.

4A/125V

**CAUTION:** FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE 4A, 125V FUSE.
**ATTENTION:** UTILISER UN FUSIBLE DE RECHANGE DE MÊME TYPE DE 4A, 125V.

NOTE :
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

**NOTE: CBA AND PWB MEANS PRINTED WIRING BOARD.**

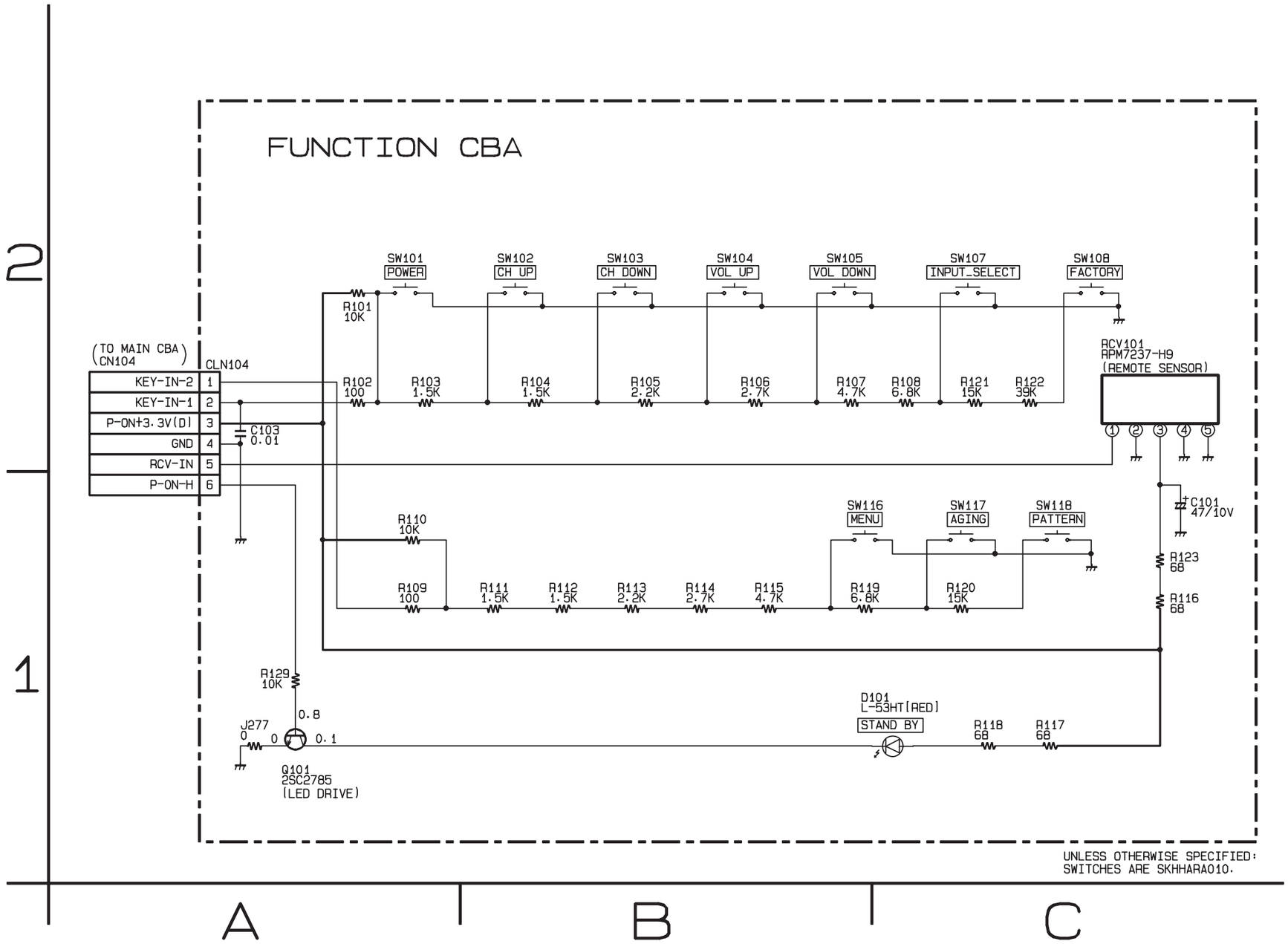



MAIN 5/5

| Ref No. | Position |
|---|---|
| ICS | |
| IC601 | AA-1 |
| IC603 | AB-3 |
| IC604 | AC-2 |
| TRANSISTORS | |
| Q601 | Y-2 |
| Q603 | Z-2 |
| Q633 | AC-4 |
| VARIABLE RESISTOR | |
| VR601 | AB-1 |
| TEST POINT | |
| TP401 | AC-2 |

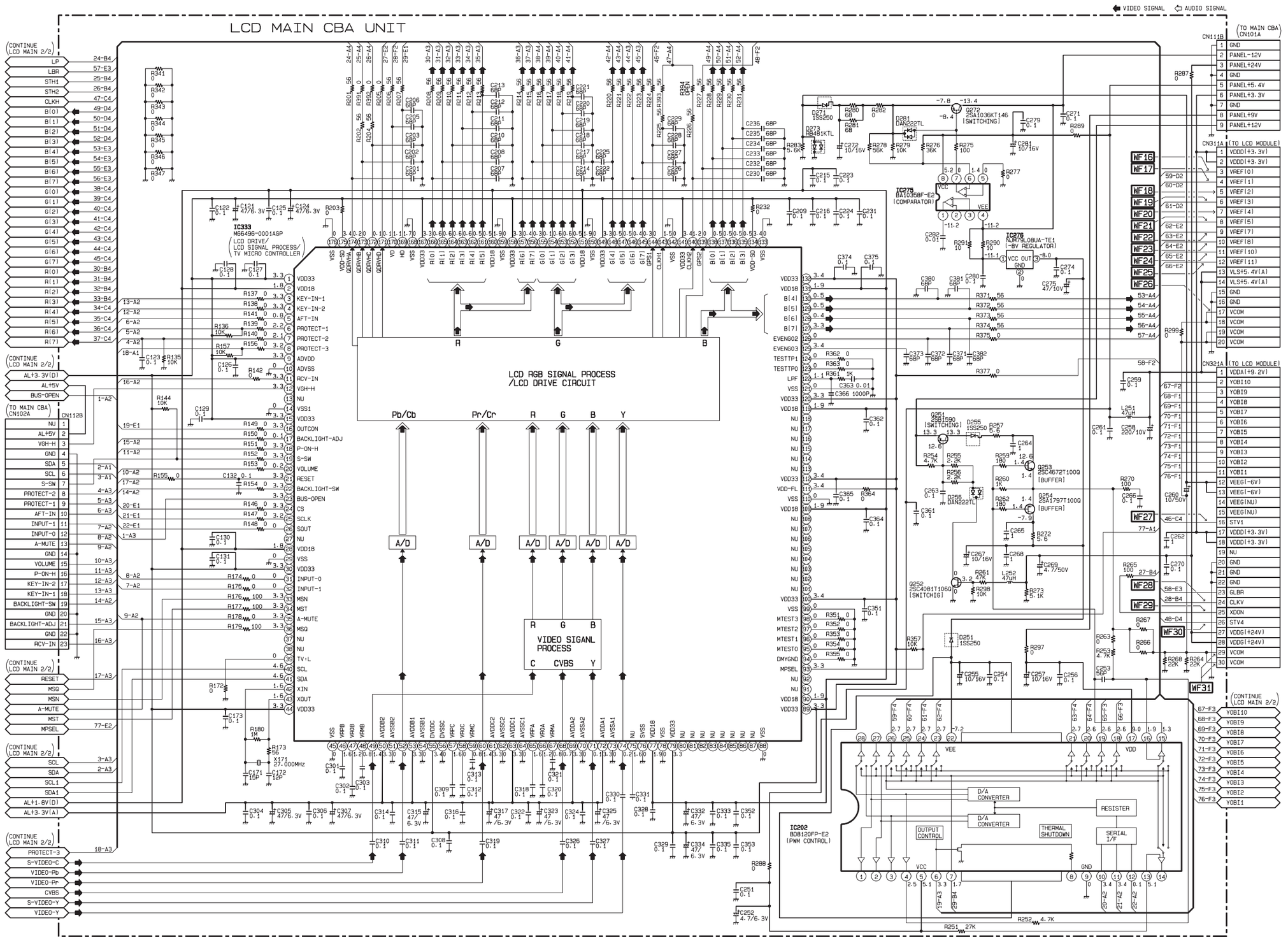
## Function Schematic Diagram

NOTE: CBA AND PWB MEANS PRINTED WIRING BOARD.



# LCD Main 1/2 Schematic Diagram

**NOTE: CBA AND PWB MEANS PRINTED WIRING BOARD.**

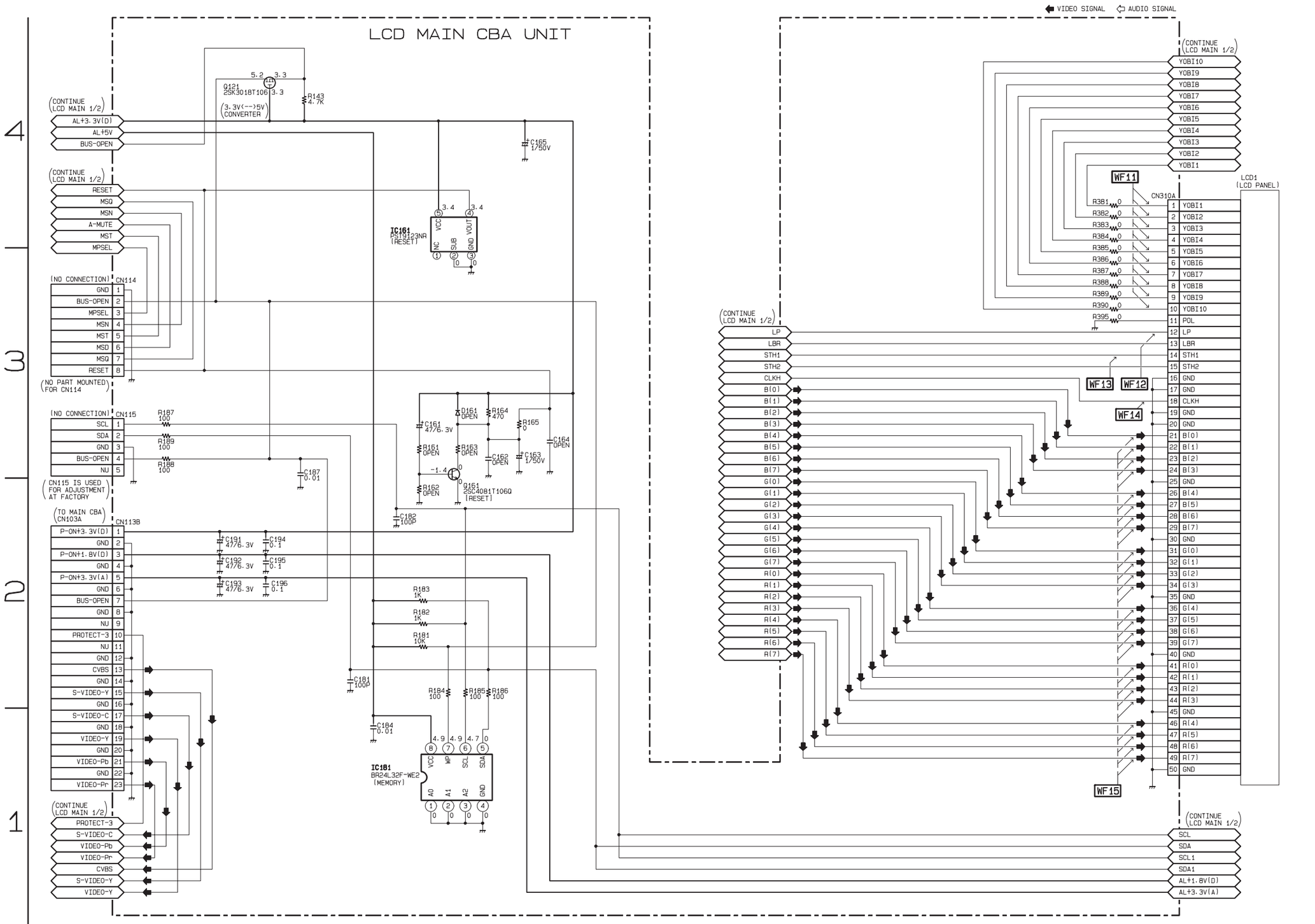



LCD 1/2

| Ref No. | Position |
|---|---|
| ICS | |
| IC202 | D-1 |
| IC275 | D-4 |
| IC276 | E-4 |
| IC333 | B-4 |
| TRANSISTORS | |
| Q251 | E-3 |
| Q252 | E-2 |
| Q253 | E-3 |
| Q254 | E-2 |
| Q272 | E-4 |
| CONNECTORS | |
| CN111B | F-4 |
| CN112B | A-3 |
| CN311A | F-4 |
| CN321A | F-3 |

# LCD Main 2/2 Schematic Diagram

**NOTE: CBA AND PWB MEANS PRINTED WIRING BOARD.**




LCD 2/2

| Ref No. | Position |
|---|---|
| ICS | |
| IC161 | H-4 |
| IC181 | H-1 |
| TRANSISTORS | |
| Q121 | G-4 |
| Q161 | H-2 |
| CONNECTORS | |
| CN113B | G-2 |
| CN114 | G-3 |
| CN115 | G-3 |
| CN310A | K-4 |

# Main CBA Top View

**CAUTION !**
Fixed voltage ( or Auto voltage selectable ) power supply circuit is used in this unit.
If Main Fuse (F601) is blown, check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.

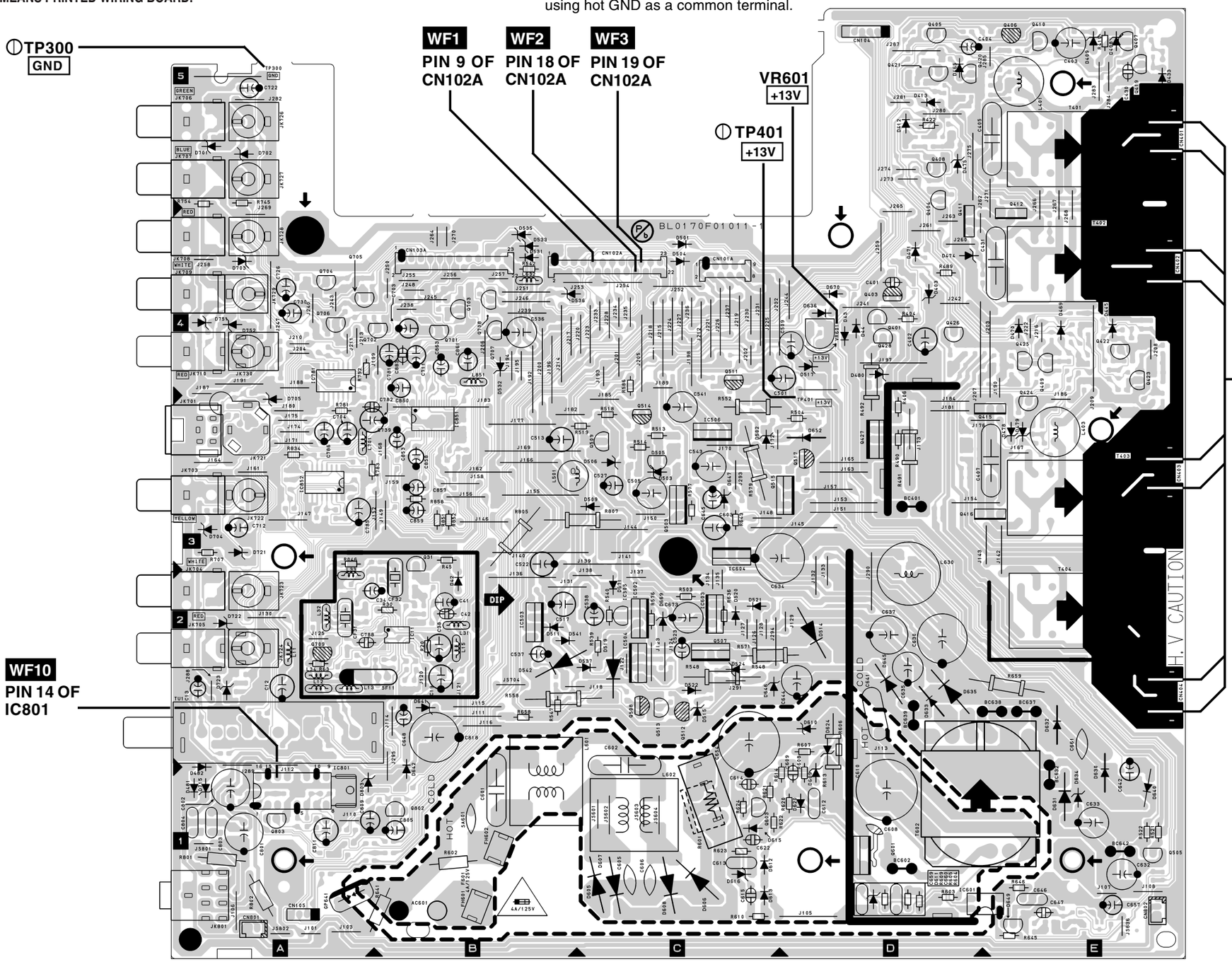
**NOTE: CBA AND PWB MEANS PRINTED WIRING BOARD.**

4A/125V

**CAUTION:** FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE 4A, 125V FUSE.
**ATTENTION:** UTILISER UN FUSIBLE DE RECHANGE DE MÊME TYPE DE 4A, 125V.

NOTE :
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

**BECAUSE A HOT CHASSIS GROUND IS PRESENT IN THE POWER SUPPLY CIRCUIT, AN ISOLATION TRANSFORMER MUST BE USED. ALSO, IN ORDER TO HAVE THE ABILITY TO INCREASE THE INPUT SLOWLY, WHEN TROUBLESHOOTING THIS TYPE POWER SUPPLY CIRCUIT, A VARIABLE ISOLATION TRANSFORMER IS REQUIRED.**



# Main CBA Bottom View

**CAUTION !**
Fixed voltage ( or Auto voltage selectable ) power supply circuit is used in this unit.
If Main Fuse (F601) is blown, check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.

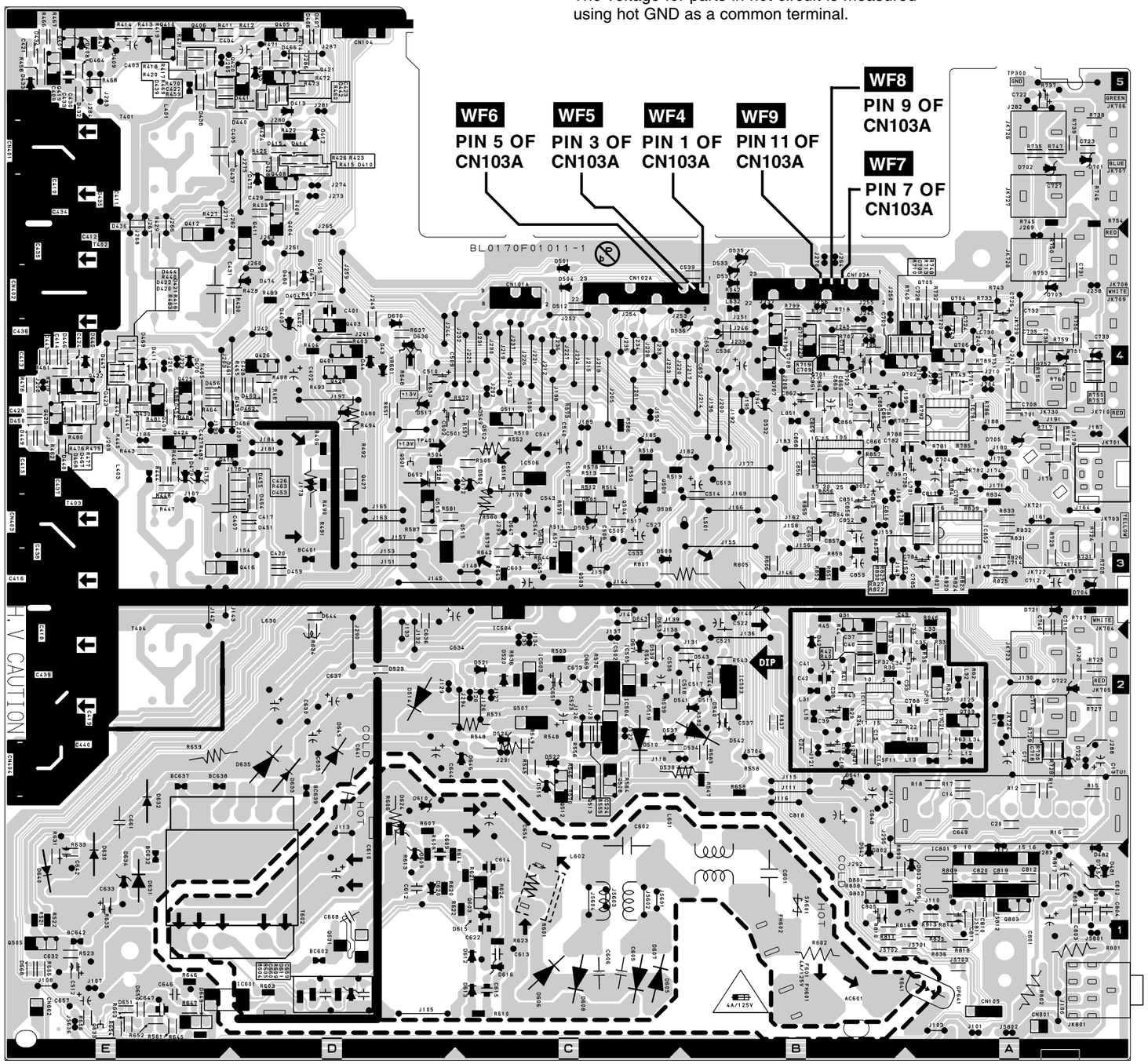
**NOTE: CBA AND PWB MEANS PRINTED WIRING BOARD.**

4A/125V

**CAUTION:** FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE 4A, 125V FUSE.
**ATTENTION:** UTILISER UN FUSIBLE DE RECHANGE DE MÊME TYPE DE 4A, 125V.

NOTE :
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

**BECAUSE A HOT CHASSIS GROUND IS PRESENT IN THE POWER SUPPLY CIRCUIT, AN ISOLATION TRANSFORMER MUST BE USED. ALSO, IN ORDER TO HAVE THE ABILITY TO INCREASE THE INPUT SLOWLY, WHEN TROUBLESHOOTING THIS TYPE POWER SUPPLY CIRCUIT, A VARIABLE ISOLATION TRANSFORMER IS REQUIRED.**

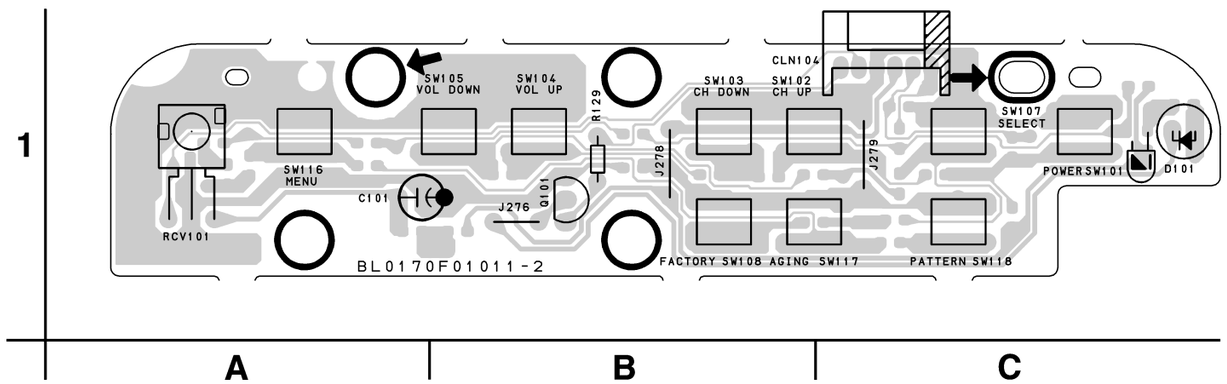



MAIN CBA

| Ref No. | Position | Ref No. | Position |
|---|---|---|---|
| ICS | | TRANSISTORS | |
| IC11 | B-2 | Q505 | E-1 |
| IC502 | C-2 | Q507 | C-2 |
| IC503 | B-2 | Q508 | C-2 |
| IC504 | C-2 | Q509 | C-3 |
| IC505 | C-2 | Q511 | C-4 |
| IC506 | C-3 | Q512 | C-2 |
| IC601 | D-1 | Q513 | C-2 |
| IC603 | C-2 | Q514 | C-3 |
| IC604 | C-3 | Q515 | C-3 |
| IC781 | A-4 | Q516 | C-3 |
| IC801 | A-1 | Q517 | D-3 |
| IC851 | B-3 | Q601 | D-1 |
| IC852 | A-3 | Q603 | C-1 |
| TRANSISTORS | | Q633 | E-1 |
| Q31 | B-3 | Q701 | B-4 |
| Q401 | D-4 | Q702 | A-4 |
| Q403 | D-4 | Q703 | B-4 |
| Q404 | D-5 | Q704 | A-4 |
| Q405 | D-5 | Q705 | A-4 |
| Q406 | E-5 | Q706 | A-4 |
| Q407 | E-5 | Q707 | B-4 |
| Q408 | D-5 | Q708 | B-4 |
| Q409 | E-4 | Q709 | A-2 |
| Q410 | E-5 | Q802 | B-1 |
| Q411 | D-4 | Q803 | A-1 |
| Q412 | E-5 | CONNECTORS | |
| Q415 | E-3 | CN101A | C-4 |
| Q416 | D-3 | CN102A | C-4 |
| Q419 | E-5 | CN103A | B-4 |
| Q420 | D-5 | CN104 | D-5 |
| Q421 | D-5 | CN401 | E-5 |
| Q422 | E-4 | CN402 | E-4 |
| Q423 | E-4 | CN403 | E-3 |
| Q424 | E-4 | CN404 | E-2 |
| Q425 | E-4 | CN801 | A-1 |
| Q426 | D-4 | CN802 | E-1 |
| Q427 | D-3 | VARIABLE RESISTOR | |
| Q428 | D-4 | VR601 | D-4 |
| Q501 | D-3 | TEST POINTS | |
| Q502 | C-4 | TP300 | A-5 |
| Q503 | C-3 | TP401 | D-3 |
| Q504 | C-3 | | |

## Function CBA Top View

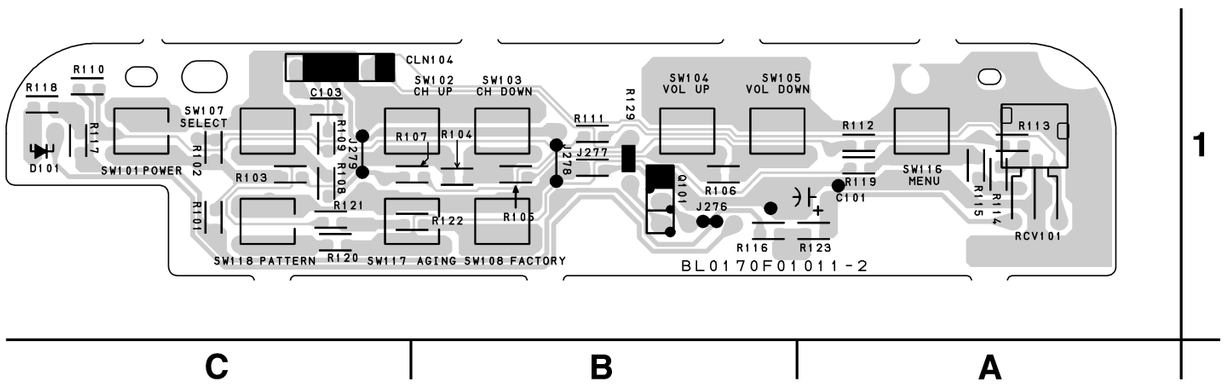
NOTE: CBA AND PWB MEANS PRINTED WIRING BOARD.




FUNCTION

| Ref No. | Position |
|---|---|
| TRANSISTOR | |
| Q101 | B-1 |
| CONNECTOR | |
| CLN104A | C-1 |

## Function CBA Bottom View



# WAVEFORMS & VOLTAGE CHART

MAIN

CN101A

| PIN NO. | Voltage / WF No. |
|---|---|
| 1 | 12.4 |
| 2 | 9.0 |
| 3 | 0 |
| 4 | 3.3 |
| 5 | 5.0 |
| 6 | 0 |
| 7 | 25.2 |
| 8 | -10.9 |
| 9 | 0 |

CN102A

| PIN NO. | Voltage / WF No. |
|---|---|
| 1 | 3.3 |
| 2 | 0 |
| 3 | 0 |
| 4 | 0 |
| 5 | 3.3 |
| 6 | 3.3 |
| 7 | 3.3 |
| 8 | 3.3 |
| 9 | WF1 |
| 10 | 0 |
| 11 | 3.3 |
| 12 | 0.9 |
| 13 | 0 |
| 14 | 1.8 |
| 15 | 2.3 |
| 16 | 2.1 |
| 17 | 3.3 |
| 18 | WF2 |
| 19 | WF3 |
| 20 | 0 |
| 21 | 3.2 |
| 22 | 4.8 |
| 23 | ----- |

CN103A

| PIN NO. | Voltage / WF No. |
|---|---|
| 1 | WF4 |
| 2 | 0 |
| 3 | WF5 |
| 4 | 0 |
| 5 | WF6 |
| 6 | 0 |
| 7 | WF7 |
| 8 | 0 |
| 9 | WF8 |
| 10 | 0 |
| 11 | FW9 |
| 12 | 0 |
| 13 | ----- |
| 14 | 3.3 |
| 15 | ----- |
| 16 | 0 |
| 17 | ----- |
| 18 | 0 |
| 19 | 3.3 |
| 20 | 0 |
| 21 | 1.8 |
| 22 | 0 |
| 23 | 3.3 |

CN104

| PIN NO. | Voltage / WF No. |
|---|---|
| 1 | 3.3 |
| 2 | 3.3 |
| 3 | 3.3 |
| 4 | 0 |
| 5 | 0 |
| 6 | 0 |

CN105

| PIN NO. | Voltage / WF No. |
|---|---|
| 1 | 3.3 |
| 2 | 0 |
| 3 | 3.3 |
| 4 | 3.3 |

CN401

| PIN NO. | Voltage / WF No. |
|---|---|
| 1 | WF32 |
| 2 | WF32 |

CN402

| PIN NO. | Voltage / WF No. |
|---|---|
| 1 | WF32 |
| 2 | WF32 |

CN403

| PIN NO. | Voltage / WF No. |
|---|---|
| 1 | WF32 |
| 2 | WF32 |

CN404

| PIN NO. | Voltage / WF No. |
|---|---|
| 1 | WF32 |
| 2 | WF32 |

LCD MAIN

CN310A

| PIN NO. | Voltage / WF No. |
|---|---|
| 1 | WF11 |
| 2 | WF11 |
| 3 | WF11 |
| 4 | WF11 |
| 5 | WF11 |
| 6 | WF11 |
| 7 | WF11 |
| 8 | WF11 |
| 9 | WF11 |
| 10 | WF11 |
| 11 | 0 |
| 12 | WF12 |
| 13 | 0 |
| 14 | WF13 |
| 15 | 0 |
| 16 | 0 |
| 17 | 0 |
| 18 | WF14 |
| 19 | 0 |
| 20 | 0 |
| 21 | WF15 |
| 22 | WF15 |
| 23 | WF15 |
| 24 | WF15 |
| 25 | 0 |
| 26 | WF15 |
| 27 | WF15 |
| 28 | WF15 |
| 29 | WF15 |
| 30 | 0 |
| 31 | WF15 |
| 32 | WF15 |
| 33 | WF15 |
| 34 | WF15 |
| 35 | 0 |
| 36 | WF15 |
| 37 | WF15 |
| 38 | WF15 |
| 39 | WF15 |
| 40 | 0 |
| 41 | WF15 |
| 42 | WF15 |
| 43 | WF15 |
| 44 | WF15 |
| 45 | 0 |
| 46 | WF15 |
| 47 | WF15 |
| 48 | WF15 |
| 49 | WF15 |
| 50 | 0 |

CN311A

| PIN NO. | Voltage / WF No. |
|---|---|
| 1 | 3.3 |
| 2 | 3.3 |
| 3 | WF16 |
| 4 | WF17 |
| 5 | WF18 |
| 6 | WF19 |
| 7 | WF20 |
| 8 | WF21 |
| 9 | WF22 |
| 10 | WF23 |
| 11 | WF24 |
| 12 | WF25 |
| 13 | 4.8 |
| 14 | 4.8 |
| 15 | 0 |
| 16 | 0 |
| 17 | WF26 |
| 18 | WF26 |
| 19 | WF26 |
| 20 | WF26 |

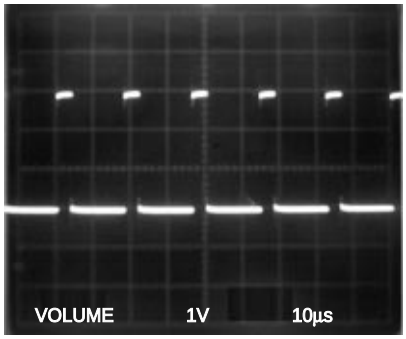
CN321A

| PIN NO. | Voltage / WF No. |
|---|---|
| 1 | 4.8 |
| 2 | WF11 |
| 3 | WF11 |
| 4 | WF11 |
| 5 | WF11 |
| 6 | WF11 |
| 7 | WF11 |
| 8 | WF11 |
| 9 | WF11 |
| 10 | WF11 |
| 11 | WF11 |
| 12 | -10.5 |
| 13 | -10.5 |
| 14 | ----- |
| 15 | ----- |
| 16 | WF27 |
| 17 | 3.3 |
| 18 | 3.3 |
| 19 | ----- |
| 20 | 0 |
| 21 | 0 |
| 22 | 0 |
| 23 | 0 |
| 24 | WF28 |
| 25 | WF29 |
| 26 | WF30 |
| 27 | 25.6 |
| 28 | 25.6 |
| 29 | WF31 |
| 30 | WF31 |

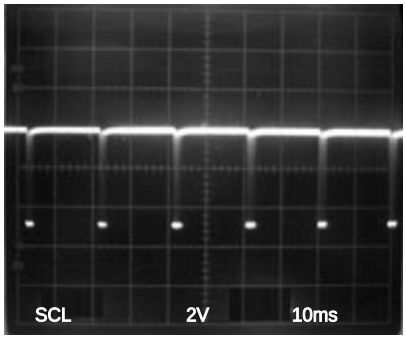
**WF1 ~ WF10 =** Waveforms to be observed at
Waveform check points.
(Shown in Schematic Diagram.)

**Input:** NTSC Color Bar Signal (with 1kHz Audio Signal)

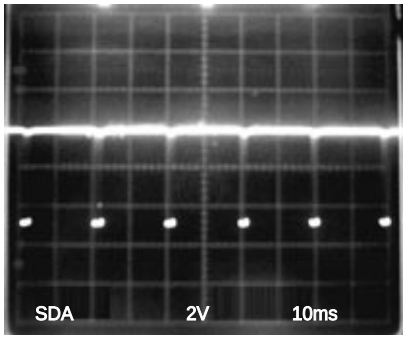
**WF1** Pin 9 of CN102A (MAIN)
Pin 15 of CN112B (LCD MAIN)



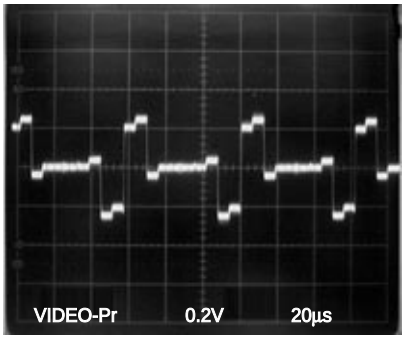

**WF2** Pin 18 of CN102A (MAIN)
Pin 6 of CN112B (LCD MAIN)



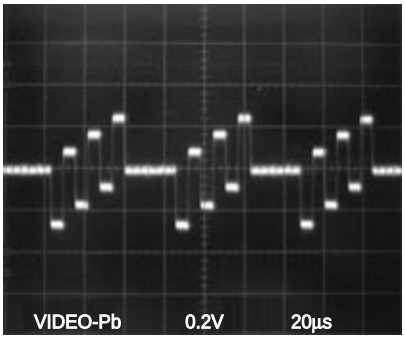

**WF3** Pin 19 of CN102A (MAIN)
Pin 5 of CN112B (LCD MAIN)



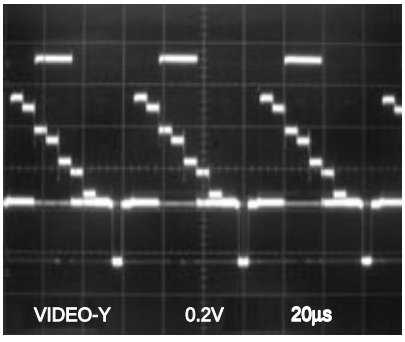

**WF4** Pin 1 of CN103A (MAIN)
Pin 23 of CN113B (LCD MAIN)



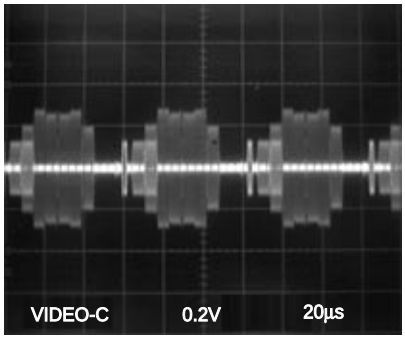

**WF5** Pin 3 of CN103A (MAIN)
Pin 21 of CN113B (LCD MAIN)



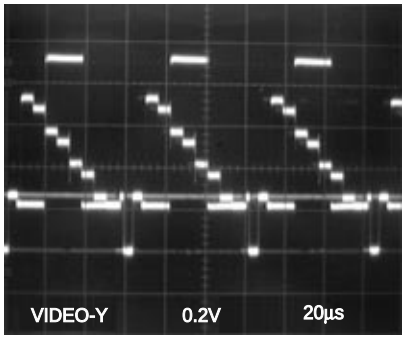

**WF6** Pin 5 of CN103A (MAIN)
Pin 19 of CN113B (LCD MAIN)



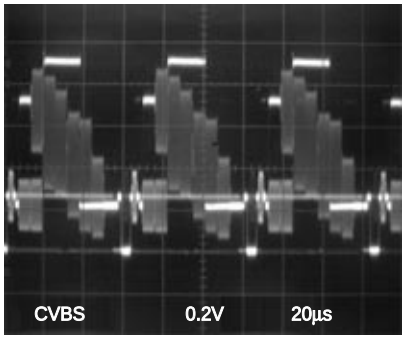

**WF7** Pin 7 of CN103A (MAIN)
Pin 17 of CN113B (LCD MAIN)



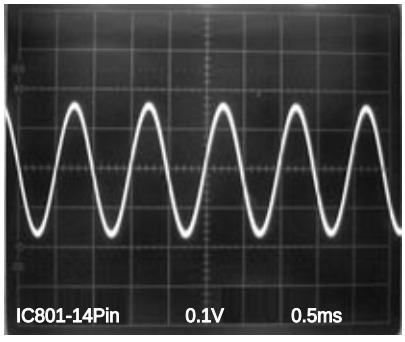

**WF8** Pin 9 of CN103A (MAIN)
Pin 15 of CN113B (LCD MAIN)




**WF9** Pin 11 of CN103A (MAIN)
Pin 13 of CN113B (LCD MAIN)

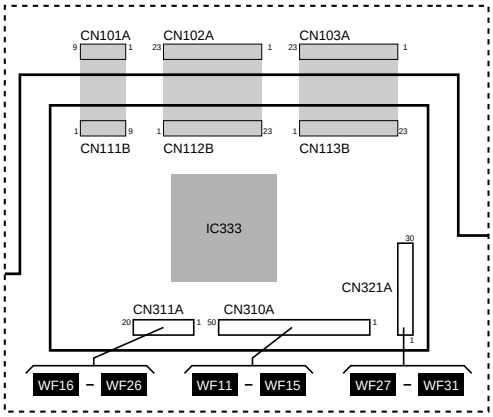



**WF10** Pin 14 of IC801 (MAIN)



# LCD CBA Measurement Point

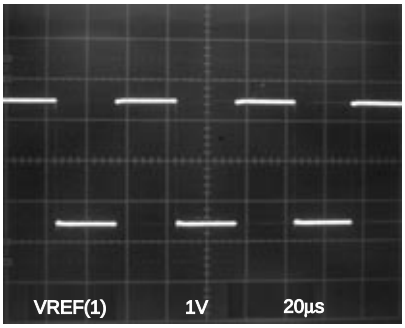
**CAUTION!**
**Since the handling of CN310A,CN311A and CN321A tends to lead to destruction easily , be careful of it enough. (especially CN321A.)**



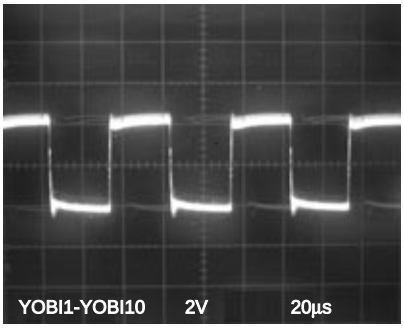

**WF11 ~ WF20 =** Waveforms to be observed at Waveform check points. (Shown in Schematic Diagram.)

**Input:** NTSC Color Bar Signal (with 1kHz Audio Signal)

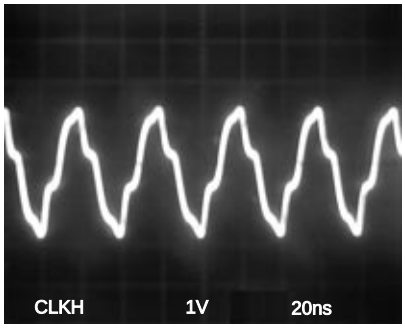
**WF17** Pin 4 of CN311A (LCD MAIN)



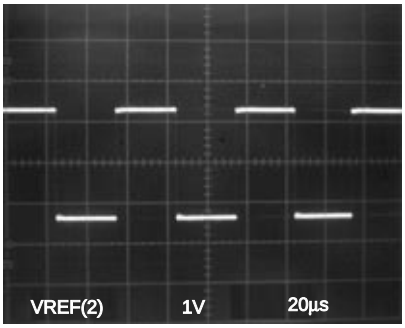

**WF11** Pin 1 - 10 of CN310A (LCD MAIN)
Pin 11 - 2 of CN321A (LCD MAIN)



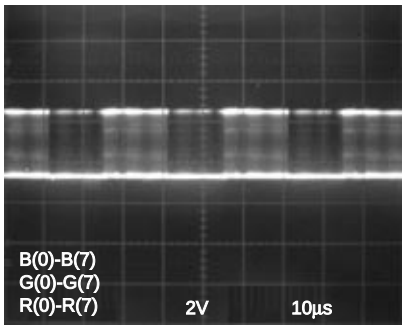

**WF14** Pin 18 of CN310A (LCD MAIN)



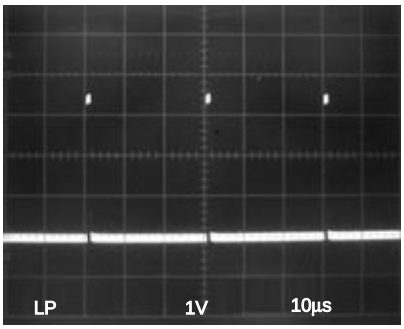

**WF18** Pin 5 of CN311A (LCD MAIN)



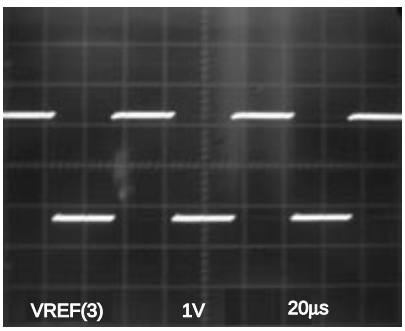

**WF15** Pin 21 - 24 , 26 - 29 , 31 - 34 , 36 - 39 , 41 - 44 , 46 - 49 of CN310A (LCD MAIN)



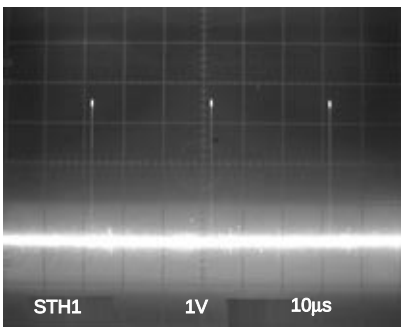

**WF12** Pin 12 of CN310A (LCD MAIN)



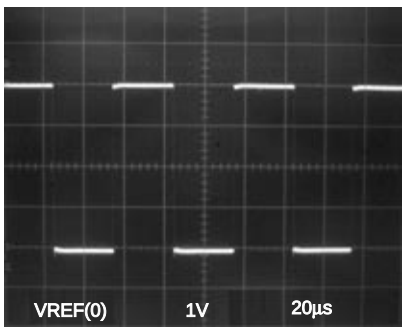

**WF19** Pin 6 of CN311A (LCD MAIN)



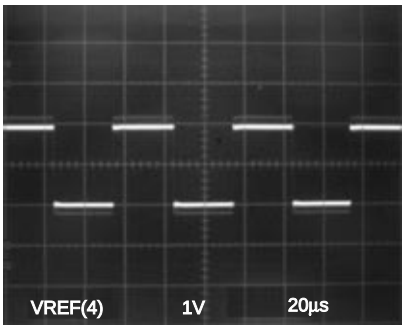

**WF13** Pin 14 of CN310A (LCD MAIN)




**WF16** Pin 3 of CN311A (LCD MAIN)



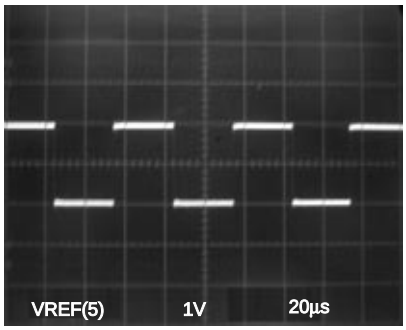

**WF20** Pin 7 of CN311A (LCD MAIN)



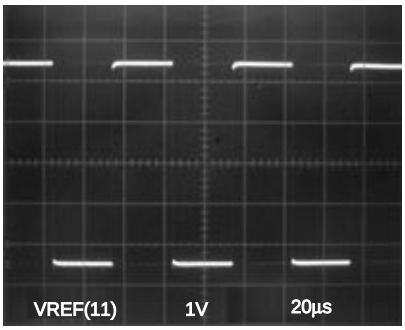
**WF21 ~ WF32 =** Waveforms to be observed at Waveform check points. (Shown in Schematic Diagram.)

**Input:** NTSC Color Bar Signal (with 1kHz Audio Signal)

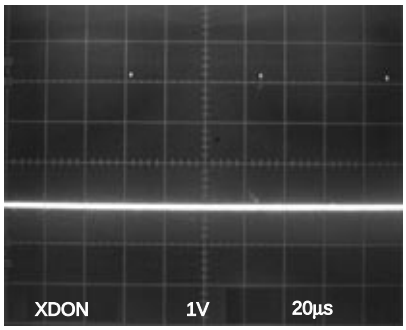
**WF21** Pin 8 of CN311A (LCD MAIN)



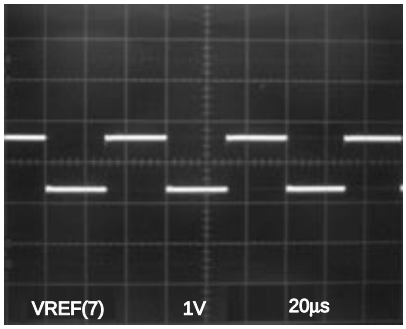

**WF25** Pin 12 of CN311A (LCD MAIN)



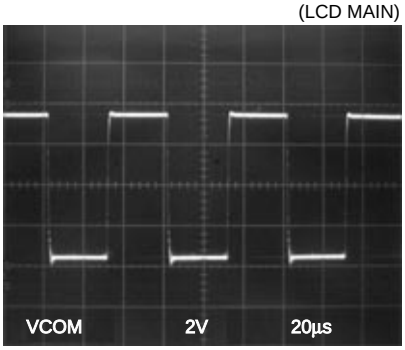

**WF29** Pin 25 of CN321A (LCD MAIN)



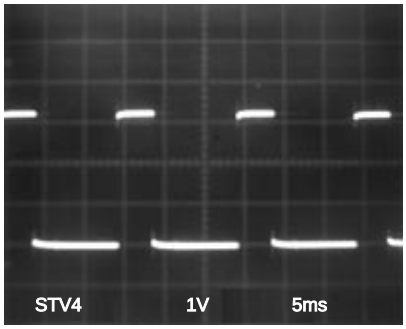

**WF22** Pin 9 of CN311A (LCD MAIN)



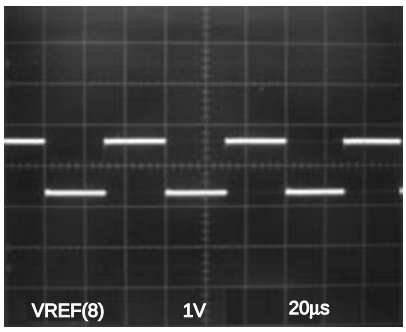

**WF26** Pin 17 - 20 of CN311A (LCD MAIN)



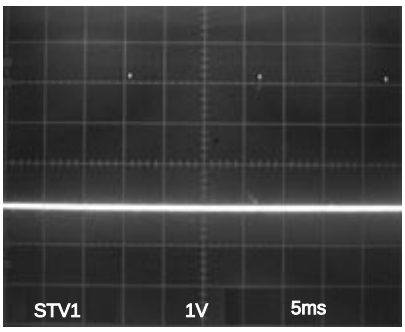

**WF30** Pin 26 of CN321A (LCD MAIN)



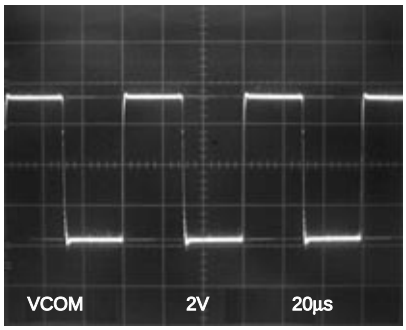

**WF23** Pin 10 of CN311A (LCD MAIN)



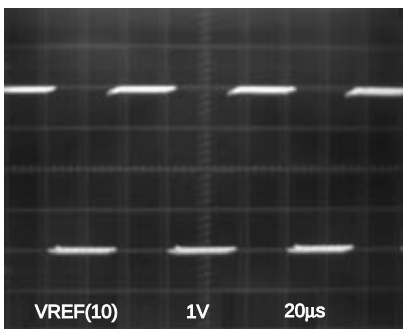

**WF27** Pin 16 of CN321A (LCD MAIN)



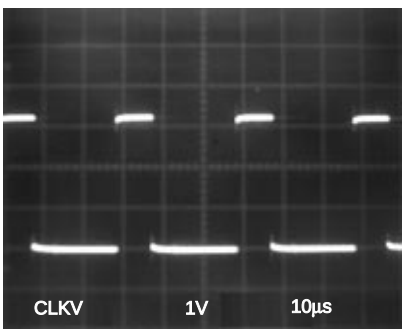

**WF31** Pin 29 - 30 of CN321A (LCD MAIN)



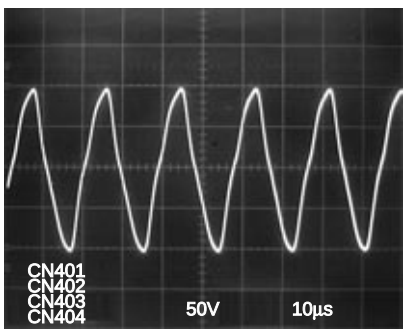

**WF24** Pin 11 of CN311A (LCD MAIN)



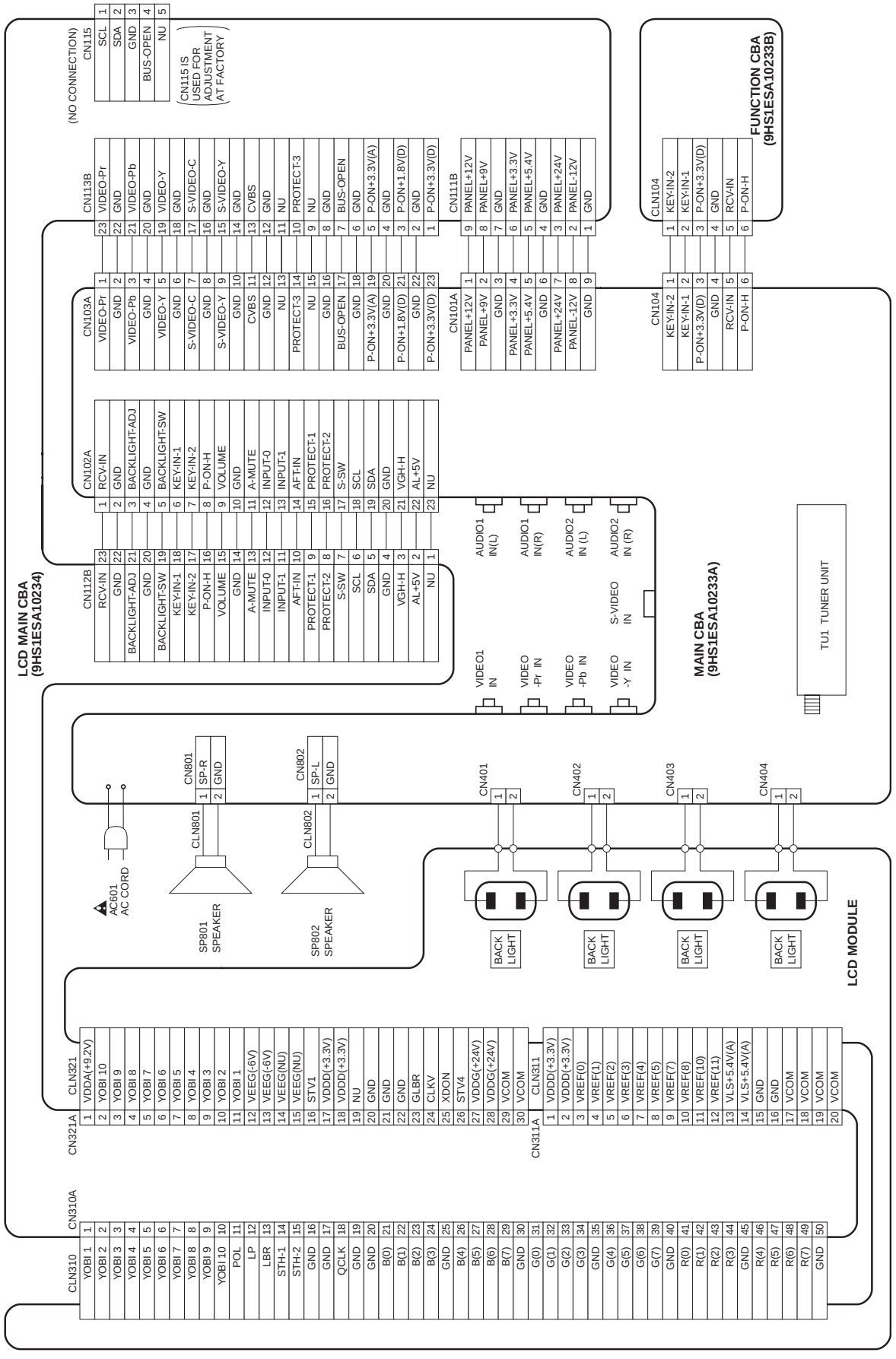

**WF28** Pin 24 of CN321A (LCD MAIN)




**WF32** Pin 1 - 2 of CN401,CN402, CN403,CN404 (MAIN CBA)



# WIRING DIAGRAM




**NOTE: CBA AND PWB MEANS PRINTED WIRING BOARD.**

# IC PIN FUNCTION DESCRIPTIONS

## IC11 (VIF/SIF)

| Pin No. | Signal Name | Function |
|---|---|---|
| 1 | Video out | Video Output |
| 2 | Video in | Video det Input |
| 3 | Vcc | Power Supply |
| 4 | Video det out | Video det Output |
| 5 | APC | APC Filter |
| 6 | VCO_F/B | VCO Feedback |
| 7 | SIF in | SIF Input |
| 8 | SIF out | SIF Output |
| 9 | Audio out | Audio Output |
| 10 | Audio Level Cont. | AF Bypass |
| 11 | Ref Signal | Standard Frequency Input |
| 12 | Logic Vcc | Power Supply |
| 13 | AFT | AFT Output |
| 14 | RF AGC | RF AGC Output |
| 15 | GND | GND |
| 16 | VIF in 1 | IF Input |
| 17 | VIF in 2 | IF Input |
| 18 | IF AGC1 | IF AGC Filter |
| 19 | IF AGC2 | IF AGC Filter |
| 20 | EQ AMP F/B | Equalizer Feedback |

## IC502 (VOLTAGE REGULATOR)

| Pin No. | Signal Name | Function |
|---|---|---|
| 1 | Vin | Input Power Supply |
| 2 | Vo | Output Power Supply |
| 3 | GND | GND |
| 4 | O | Control ON/OFF |

## IC503/IC504 (VOLTAGE REGULATOR)

| Pin No. | Signal Name | Function |
|---|---|---|
| 1 | Vin | Input Power Supply |
| 2 | Vo | Output Power Supply |
| 3 | GND | GND |
| 4 | Vadj | Control Output Voltage |

## IC505 (PST600L)

| Pin No. | Signal Name | Function |
|---|---|---|
| 1 | Vcc | Input Power Supply |
| 2 | GND | GND |
| 3 | Vout | Output Power Supply |

## IC506 (NJM78L09A)

| Pin No. | Signal Name | Function |
|---|---|---|
| 1 | COMMON | GND |
| 2 | INPUT | Input Power Supply |
| 3 | OUTPUT | Output Power Supply |

## IC601 (PHOTOCOUPLER )

| Pin No. | Signal Name | Function |
|---|---|---|
| 1 | Anode | Input Pulse |
| 2 | Cathode | Input Monitor |
| 3 | Emitter | Input Power Supply |
| 4 | Collector | Output Power Supply |

## IC603/IC604 (VOLTAGE REGULATOR)

| Pin No. | Signal Name | Function |
|---|---|---|
| 1 | INPUT | Input Power Supply |
| 2 | COMMON(GND) | GND |
| 3 | OUTPUT | Output Power Supply |

## IC781 [TC4053BF(EL.N)]

| Pin No. | Signal Name | Function |
|---|---|---|
| 1 | 1Y | Video Signal Input |
| 2 | 0Y | Video Signal Input |
| 3 | 1Z | Video Signal Input |
| 4 | Z-COM | Video Signal Output |
| 5 | 0Z | Video Signal Input |
| 6 | INH | GND |
| 7 | Vee | GND |
| 8 | Vss | GND |
| 9 | C | Switching Control |

| Pin No. | Signal Name | Function |
|---|---|---|
| 10 | B | Switching Control |
| 11 | A | Switching Control |
| 12 | 0X | Video Signal Input |
| 13 | 1X | Video Signal Input |
| 14 | X-COM | Video Signal Output |
| 15 | Y-Com | Video Signal Output |
| 16 | Vdd | Power Supply |

## IC801 (AN17812A)

| Pin No. | Signal Name | Function |
|---|---|---|
| 1 | Ch1 IN A | Audio (R ch) Input |
| 2 | Mute/Standby | Mute Switching |
| 3 | Ch1 IN B | Not Used |
| 4 | Input GND | GND |
| 5 | RF | RF |
| 6 | Ch2 IN A | Audio (L ch) Input |
| 7 | Vol | Volume Control |
| 8 | Ch2 IN B | Not Used |
| 9 | Monitor2 | Not Used |
| 10 | Power GND 2 | GND |
| 11 | Ch2 Output | Audio (L ch) Output |
| 12 | INSW | GND |
| 13 | Vcc | Power Supply |
| 14 | Ch1 Output | Audio (R ch) Output |
| 15 | Power GND 1 | GND |
| 16 | Monitor1 | Not Used |

## IC851 (MTS DECORDER)

| Pin No. | Signal Name | Function |
|---|---|---|
| 1 | NC | Not Used |
| 2 | WB TIME | Set Detection Recovery Time of Wide Expander Effective Value |
| 3 | WB DET | Input Detection Circuit of Wide Expander Effective Value |
| 4 | SPE TIME | Set Detection Recovery Time of Variable De-Emphasis Effective Value |
| 5 | SPE DET | Input Detection Circuit of Variable De-Emphasis Effective Value |
| 6 | SPE FIL | Adjust Variable De-Emphasis Level |
| 7 | I2C/PARA | Control Mode Switching |
| 8 | AGCSW | Not Used |
| 9 | MODE | Not Used |
| 10 | FOMO | Not Used |
| 11 | MUTE | Not Used |
| 12 | SIF/BB | Not Used |
| 13 | NOISE DET | Detect Noise of SAP Malfunction Protection Circuit |
| 14 | SAP DET | Detect Carrier Level of SAP Signal |
| 15 | L+R REF | Filter |
| 16 | NC | Not Used |
| 17 | PILOT DET | Detect Stereo Pilot Signal |
| 18 | PLL | Connect Stereo PLL Low Pass Filter |
| 19 | Vcc | Power Supply |
| 20 | NC | Not Used |
| 21 | INPUT | Input Composite Signal |
| 22 | SIRREF | Detect SIF Mode |
| 23 | STERO REF | Filter |
| 24 | SDA/SAPID | IIC Bus Data Input/Switch SAP |
| 25 | GND | GND |
| 26 | PE | Not Used |
| 27 | SCL/STID | IIC Bus Clock Input/Switch Stereo |
| 28 | AGC DET | Detect AGC Level |
| 29 | Rout | R-ch Line Out Output |
| 30 | Lout | L-ch Line Out Output |
| 31 | NC | Not Used |
| 32 | L-R REF | dbx Output |

## IC852 (SWITCHING )

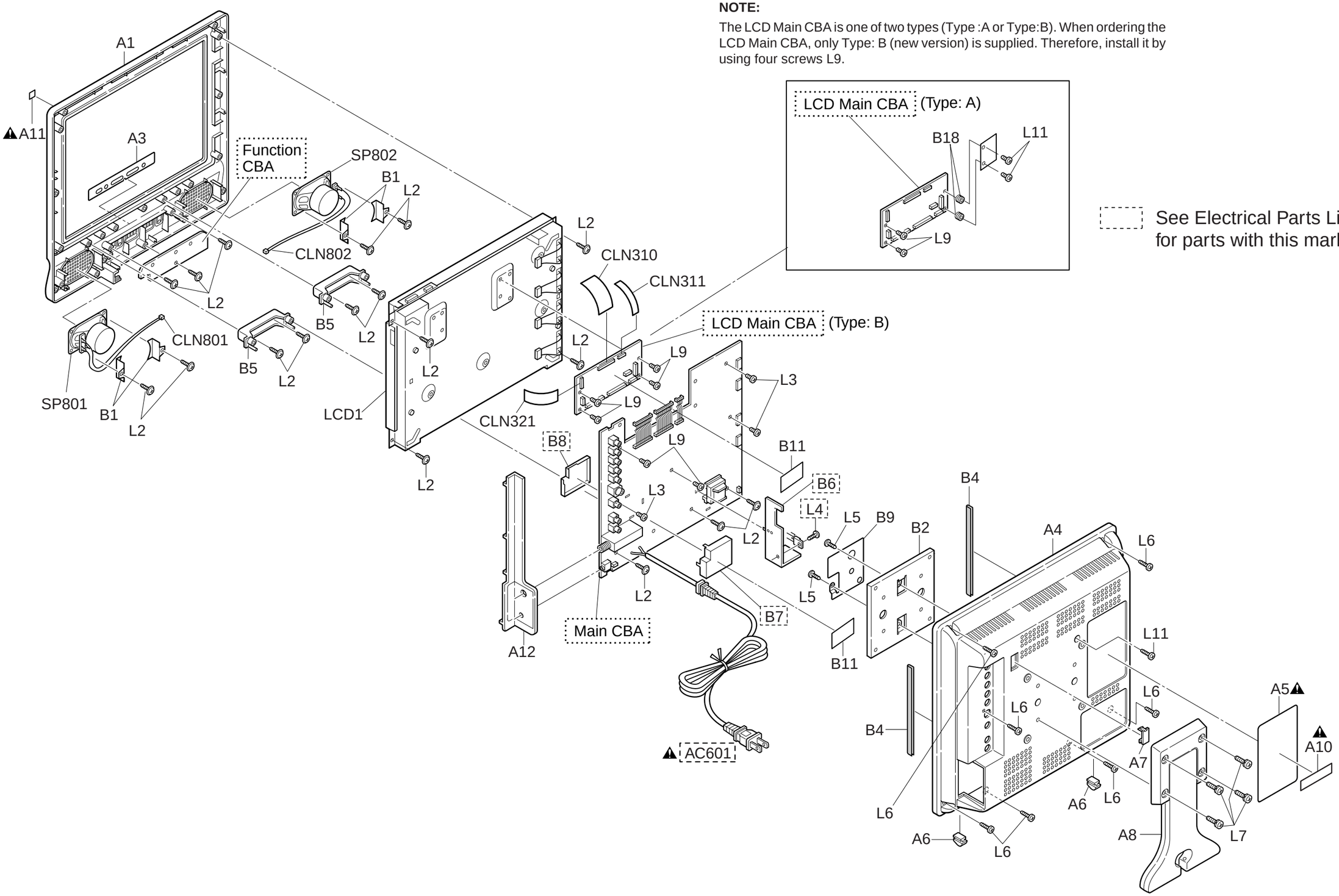
| Pin No. | Signal Name | Function |
|---|---|---|
| 1 | 0Y | Audio (R ch) Input |
| 2 | 2Y | Audio (R ch) Input |
| 3 | Y-COM | Audio (R ch) Output |
| 4 | 3Y | Audio (R ch) Input |
| 5 | 1Y | Audio (R ch) Input |
| 6 | INH | Not Used |

| Pin No. | Signal Name | Function |
|---|---|---|
| 7 | Vee | Not Used |
| 8 | Vss | Not Used |
| 9 | B | Switching Control |
| 10 | A | Switching Control |
| 11 | 3X | Audio (L ch) Input |
| 12 | 0X | Audio (L ch) Input |
| 13 | X-COM | Audio (L ch) Output |
| 14 | 1X | Audio (L ch) Input |
| 15 | 2X | Audio (L ch) Input |
| 16 | Vdd | Power Supply |

# EXPLODED VIEWS

**NOTE: CBA AND PWB MEANS PRINTED WIRING BOARD.**

## Cabinet



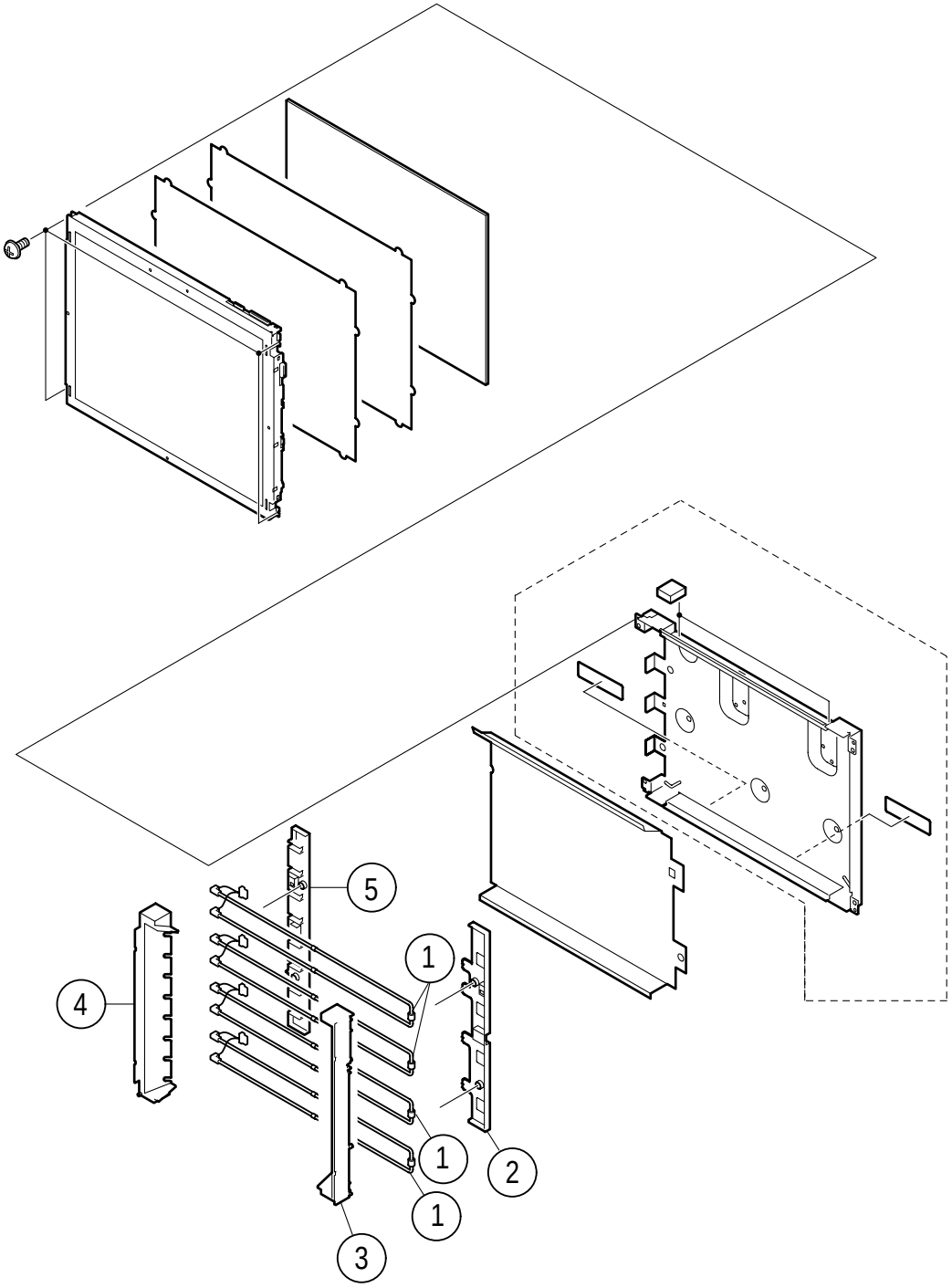

**NOTE:**

The LCD Main CBA is one of two types (Type :A or Type:B). When ordering the LCD Main CBA, only Type: B (new version) is supplied. Therefore, install it by using four screws L9.

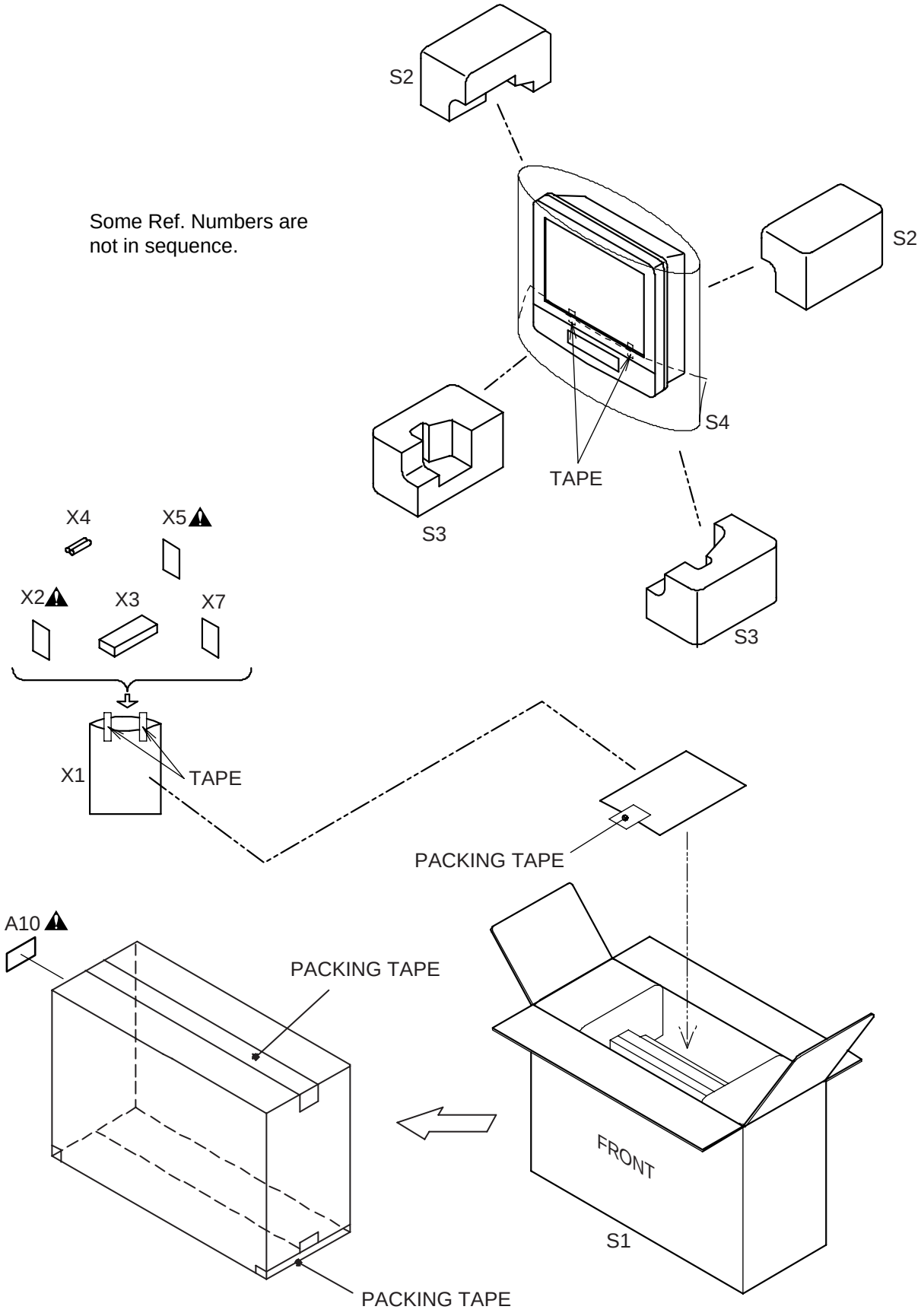



See Electrical Parts List for parts with this mark.

## LCD Panel Display



## Packing


Some Ref. Numbers are not in sequence.
S2
S2
S4
TAPE
S3
S3
X4
X5
X2
X3
X7
X1
TAPE
PACKING TAPE
A10
PACKING TAPE
FRONT
S1
PACKING TAPE

# MECHANICAL PARTS LIST

## PARTS REPLACEMENT

Replacement parts which have these special safety characteristics identified in this manual ; electrical components having such features are identified by ⚠ and shaded areas in the Replacement Parts Lists and Schematic Diagrams. The use of a substitute replacement part which does no have the same safety characteristic as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

### "HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER 2. REF. NO.
3. PART NO. 4. DESCRIPTION

in **USA**: Contact your nearest SHARP Parts Distributor to order. For location of SHARP Parts Distributor, Please call Toll-Free; 1-800-BE-SHARP

# LISTE DES PIÈCES MÉCHANIQUES

## CHANGE DES PIECES

Les pièces de rechange qui pr élelesentent ces caract éleristiques sp éleciales de s élecurit éle, sont identifi élees dans ce manuel : les pièces élelectriques qui pr élesentent ces particularit éles, sont rep éler élee par la marque ⚠ et sont hachur élees dans les listes de pièces et dans les diagrammes sch élematiques.

La substitution d'une pièce de rechange par une autre qui ne pr éLesente pas les m éoemes caract éLeristiques de s élecurit éle que la pièce recommand élee parl'usine et dans ce manuel de service, peut provoquer une éLelectrocution, un incendie ou toutautre sinistre.

### "COMMENT COMMANDER LES PIECES DE RECHANGE"

Pour que votre commande soit rapidement et correctement remplie, veuillez fournir les renseignements suivants.

1. NUMERO DU MODELE 2. NO. DE REF
3. NO. DE PIECE 4. DESCRIPTION

in **CANADA**: Contact SHARP Electronics of Canada Limited Phone (416) 890-2100

| Ref. No. | Part No. | Description |
|---|---|---|
| A1 | 9HS1EM020095 | FRONT CABINET L0171UB |
| A3 | 9HS1EM320095 | CONTROL PLATE L0270UA |
| A4 | 9HS1EM020052 | REAR CABINET L0170UA |
| A5⚠ | ———— | RATING LABEL L0171UB |
| A6 | 9HS1EM420247 | RUBBER FOOT L0170UA |
| A7 | 9HS1EM420287 | CONNECTER CAP L0170UA |
| A8 | 9HS1EMN20093 | PHOTO STAND ASSEMBLY L0170UA |
| A10⚠ | ———— | BARCODE LABEL(SET) L0171UB |
| A11⚠ | ———— | ENERGY STAR LABEL L0170UA |
| A12 | 9HS1EM120038 | 13V JACK HOLDER L0170UA |
| B1 | 9HS1EM420278 | SPEAKER HOLDER L0170UA |
| B2 | 9HS1EM220038 | STAND HOLDER L0170UA |
| B4 | 9HS1EM420019 | CLOTH(10X190XT0.3) L0200UA |
| B5 | 9HS1EM320078 | 13V PCB HOLDER L0170UA |
| B9 | 9HS1EM420428 | INSULATION SHEET L0170UA |
| B11 | 9HS0EM408976 | CLOTH(20X65XT0.3) L0336JG |
| B18 | 9HS1EM420522 | RUBBER CUSHION |
| CLN310 | 9HSX1L0170-006 | FFC WIRE 50PIN WX1L0170-006 |
| CLN311 | 9HSX1L0170-004 | FFC WIRE 20PIN WX1L0170-004 |
| CLN321 | 9HSX1L0170-005 | FFC WIRE 30PIN WX1L0170-005 |
| CLN801 | 9HSX1L0170-001 | SPEAKER WIRE ASSEMBLY WX1L0170-001 |
| CLN802 | 9HSX1L0170-002 | SPEAKER WIRE ASSEMBLY WX1L0170-002 |
| L2 | 9HSGCMP3100 | SCREW, P-TIGHT M3X10 WASHER HEAD+ |
| L3 | 9HSGBMS3060 | SCREW, S-TIGHT M3X6 BIND HEAD+ |
| L5 | 9HSGBMP3080 | P-TIGHT SCREW 3X8 BIND + |
| L6 | 9HSGBKP3100 | SCREW, P-TIGHT 3X10 BIND HEAD+ |
| L7 | 9HSGBKS4180 | SCREW, S-TIGHT M4X18 BIND HEAD+ |
| L9 | 9HS1EM420446 | DOUBLE SEMS SCREW M3X8 |
| L11 | 9HS1EM420498 | DOUBLE SEMS SCREW M3X10 M3X10 |
| LCD1 | 9HSLCD100SH002 | LIQUID CRYSTAL PANEL 13" LQ130V3FZ50 |
| SP801 | 9HSSD0807XQ002 | SPEAKER S0407F10 |

| Ref. No. | Part No. | Description |
|---|---|---|
| SP802 | 9HSSD0807XQ002 | SPEAKER S0407F10 |
| S1 | 9HS1EM320121 | CARTON |
| S2 | 9HS1EM020053 | STYROFOAM TOP L0170UA |
| S3 | 9HS1EM020054 | STYROFOAM BOTTOM L0170UA |
| S4 | 9HS0EM301908 | SET BAG L0110UA |
| X1 | 9HS0EM408420 | BAG POLYETHYLENE 235X365XT0.03 |
| X2⚠ | 9HS1EMN20180 | OWNER'S MANUAL L0270UA"EN/FR" |
| X3 | 9HSREMT21SH001 | REMOTE CONTROL RRMCGA336WJSA |
| X4 | 9HSB0M451T0001 | DRY BATTERY R6P/2S |
| X5⚠ | 9HS1EMN20181 | OWNER'S MANUAL SPANISH/WARRANTY |
| X7 | 9HS1EMN20157 | QUESTIONNAIRE CARD L0170UA |

## LCD Panel Display

| Ref. No. | Part No. | Description |
|---|---|---|
| 1 | KLMP-A048WJZZ | Lamp Unit, x4 |
| 2 | LHLDZA429WJKZ | Lamp Holder-R (Bottom) |
| 3 | LHLDZA433WJKZ | Lamp Holder-R (Top) |
| 4 | LHLDZA434WJKZ | Lamp Holder-L (Top) |
| 5 | LHLDZA435WJKZ | Lamp Holder-L (Bottom) |

# ELECTRICAL PARTS LIST

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# LISTE DES PIÈCES ÉLECTRIQUES

## CHANGE DES PIECES

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3. NO. DE PIECE 4. DESCRIPTION

in **CANADA**: Contact SHARP Electronics of Canada Limited Phone (416) 890-2100

## PRINTED WIRING BOARD ASSEMBLYS

| Ref. No. | Part No. | Description |
|---|---|---|
| | 9HSL0170G04012 | LCD MAIN CBA |
| | 9HS1ESA10233 | MAIN CBA + FUNCTION CBA |
| | | Consists of the following |
| | 9HS1ESA10233A | MAIN CBA |
| | 9HS1ESA10233B | FUNCTION CBA |

## LCD MAIN CBA [9HSL0170G04012]

| Ref. No. | Part No. | Description |
|---|---|---|
| **CAPACITORS** | | |
| C121 | 9HSA0K470SP062 | CHIP ELECTROLYTIC CAP. 47µ/6.3V M |
| C122 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V |
| C123 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V |
| C124 | 9HSA0K470SP062 | CHIP ELECTROLYTIC CAP. 47µ/6.3V M |
| C125 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V |
| C126 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V |
| C127 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V |
| C128 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V |
| C129 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V |
| C130 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V |

| Ref. No. | Part No. | Description |
|---|---|---|
| C131 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V |
| C132 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V |
| C161 | 9HSA0K470SP062 | CHIP ELECTROLYTIC CAP. 47μ/6.3V M |
| C163 | 9HSA1J010SP062 | CHIP ELECTROLYTIC CAP. 1μF/50V M |
| C165 | 9HSA1J010SP062 | CHIP ELECTROLYTIC CAP. 1μF/50V M |
| C171 | 9HSHD1JJ3CH150 | CHIP CERAMIC CAP. CH J 15pF/50V |
| C172 | 9HSHD1JJ3CH120 | CHIP CERAMIC CAP. CH J 12pF/50V |
| C173 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V |
| C181 | 9HSHD1JJ3CH101 | CHIP CERAMIC CAP.(1608) CH J 100pF/50V |
| C182 | 9HSHD1JJ3CH101 | CHIP CERAMIC CAP.(1608) CH J 100pF/50V |
| C184 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01μF/50V |
| C187 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01μF/50V |
| C191 | 9HSA0K470SP062 | CHIP ELECTROLYTIC CAP. 47μ/6.3V M |
| C192 | 9HSA0K470SP062 | CHIP ELECTROLYTIC CAP. 47μ/6.3V M |
| C193 | 9HSA0K470SP062 | CHIP ELECTROLYTIC CAP. 47μ/6.3V M |
| C194 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V |
| C195 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V |
| C196 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V |
| C201 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C202 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C203 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C205 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C206 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C207 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C208 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C209 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V |
| C210 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C211 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C212 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C213 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C214 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C215 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V |
| C216 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V |
| C217 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C218 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C219 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C220 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C221 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C222 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C223 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V |
| C224 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V |
| C225 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C226 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C227 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C228 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C229 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C230 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C231 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V |
| C232 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C233 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C234 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C235 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C236 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C251 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1μF/50V |
| C252 | 9HSA0K470SP062 | CHIP ELECTROLYTIC CAP. 47μ/6.3V M |
| C253 | 9HSHD1JJ3CH560 | CHIP CERAMIC CAP. CH J 56pF/50V |
| C254 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1μF/50V |
| C255 | 9HSA1C100SP062 | CHIP E.C CHIP E.C 10μ/16V |
| C256 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1μF/50V |
| C257 | 9HSA1C100SP062 | CHIP E.C CHIP E.C 10μ/16V |
| C258 | 9HSA1A221SP012 | CHIP ELECTROLYTIC CAP. 220μF/10V M |
| C259 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1μF/50V |
| C260 | 9HSA1J100SP062 | CHIP ELECTROLYTIC CAP. 10μF/50V M |
| C261 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1μF/50V |
| C262 | 9HSHD1CK30B105 | CHIP CERAMIC CAP. B K 1μF/16V |
| C263 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1μF/50V |
| C264 | 9HSHD1CK30B105 | CHIP CERAMIC CAP. B K 1μF/16V |
| C265 | 9HSHD1CK30B105 | CHIP CERAMIC CAP. B K 1μF/16V |
| C266 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1μF/50V |

| Ref. No. | Part No. | Description |
|---|---|---|
| C267 | 9HSA1C100SP062 | CHIP E.C CHIP E.C 10µ/16V |
| C268 | 9HSHD1CK30B105 | CHIP CERAMIC CAP. B K 1µF/16V |
| C269 | 9HSA1J4R7SP062 | CHIP ELECTROLYTIC CAP. 4.7µF/50V |
| C270 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C271 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C272 | 9HSA1C100SP062 | CHIP E.C CHIP E.C 10µ/16V |
| C274 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V |
| C275 | 9HSA1A470SP062 | CHIP ELECTROLYTIC CAP. 47µF/10V |
| C279 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V |
| C280 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V |
| C281 | 9HSA1C100SP062 | CHIP E.C CHIP E.C 10µ/16V |
| C282 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C301 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C302 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C303 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C304 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C305 | 9HSA0K470SP062 | CHIP ELECTROLYTIC CAP. 47µ/6.3V M |
| C306 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C307 | 9HSA0K470SP062 | CHIP ELECTROLYTIC CAP. 47µ/6.3V M |
| C308 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C309 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C310 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C311 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C312 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C313 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C314 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C315 | 9HSA0K470SP062 | CHIP ELECTROLYTIC CAP. 47µ/6.3V M |
| C316 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C317 | 9HSA0K470SP062 | CHIP ELECTROLYTIC CAP. 47µ/6.3V M |
| C318 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C319 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C320 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C321 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C322 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C323 | 9HSA0K470SP062 | CHIP ELECTROLYTIC CAP. 47µ/6.3V M |
| C324 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C325 | 9HSA0K470SP062 | CHIP ELECTROLYTIC CAP. 47µ/6.3V M |
| C326 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C327 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C328 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C329 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C330 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C331 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C332 | 9HSA0K470SP062 | CHIP ELECTROLYTIC CAP. 47µ/6.3V M |
| C333 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V |
| C334 | 9HSA0K470SP062 | CHIP ELECTROLYTIC CAP. 47µ/6.3V M |
| C335 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V |
| C351 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V |
| C352 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V |
| C353 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V |
| C361 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V |
| C362 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V |
| C363 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C364 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V |
| C365 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V |
| C366 | 9HSHD1JK30B102 | CHIP CERAMIC CAP.(1608) B K 1000pF/50V |
| C371 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C372 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C373 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C374 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V |
| C375 | 9HSHD1JZ30F104 | CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V |
| C380 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C381 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| C382 | 9HSHD1JJ3CH680 | CHIP CERAMIC CAP.(1608) CH J 68pF/50V |
| **CONNECTORS** | | |
| CN111B | 9HSCTWD09TG003 | FPC CONNECTOR 9P 127303109K3 |
| CN112B | 9HSCTWD23TG003 | FPC CONNECTOR 23P 127303123K3 |
| CN113B | 9HSCTWD23TG003 | FPC CONNECTOR 23P 127303123K3 |
| CN115 | 9HS3PHD05JG002 | CONNECTOR BASE 5P B5B-PH-SM3-TB |

| Ref. No. | Part No. | Description |
|---|---|---|
| CN310A | 9HSC9SD50ER003 | FPC/FFC CONNECTOR IMSA-9637S-50Y905 |
| CN311A | 9HSC9SD20ER003 | FPC/FFC CONNECTOR IMSA-9637S-20Y905 |
| CN321A | 9HSC9SD30ER003 | FPC FFC CONNECTOR IMSA-9637S-30Y905 |
| **DIODES** | | |
| D251 | 9HSD1Z001SS250 | SWITCHING DIODE 1SS250 |
| D255 | 9HSD1Z001SS250 | SWITCHING DIODE 1SS250 |
| D256 | 9HSD1Z00DAN222 | SWITCHING DIODE DAN222 TL |
| D271 | 9HSD1Z001SS250 | SWITCHING DIODE 1SS250 |
| D273 | 9HSD1Z00RB481K | SHOTTKY DIODE RB481K TL |
| D281 | 9HSD1Z00DAN222 | SWITCHING DIODE DAN222 TL |
| **ICs** | | |
| IC161 | 9HSSBLA0TMM077 | IC(RESET) PST9123NR |
| IC181 | 9HSSZBA0TRM067 | IC EEPROM(32K) BR24L32F-WE2 |
| IC202 | 9HSSZAA0TRM012 | FLASH CONTROL IC FOR DSC BD8120FP-E2 |
| IC275 | 9HSSMLA0TRM006 | IC,OPERATIONNAL AMPLIFIER BA10358F-E2 |
| IC276 | 9HSSZBA0TJR074 | IC NJM79L08UA-TE1-#ZZZB |
| IC333 | 9HSSZAA0RHT048 | TIMER MICON M66496-0001AGP |
| **COILS** | | |
| L251 | 9HSLC470MTU038 | CHIP INDUCTOR LB2012T470M |
| L252 | 9HSLC470MTU038 | CHIP INDUCTOR LB2012T470M |
| **TRANSISTORS** | | |
| Q121 | 9HSF1Z02SK3018 | FET 2SK3018 T106 |
| Q161 | 9HSQ1Q02SC4081 | TRANSISTOR 2SC4081 T106 Q |
| Q251 | 9HSQ1Q2SB1590K | CHIP TRANSISTOR 2SB1590 |
| Q252 | 9HSQ1Q02SC4081 | TRANSISTOR 2SC4081 T106 Q |
| Q253 | 9HSQCQ02SC4672 | CHIP TRANSISTOR 2SC4672T100Q |
| Q254 | 9HSQCQ02SA1797 | CHIP TRANSISTOR 2SA1797T100Q |
| Q272 | 9HSQ8R2SA1036K | CHIP TRANSISTOR 2SA1036K(R) T146 |
| **RESISTORS** | | |
| R135 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R136 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R137 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R138 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R139 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R140 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R141 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R142 | 9HSRXAJR5Z0471 | CHIP RES.(1608) 1/10W J 470Ω |
| R143 | 9HSRXAJR5Z0472 | CHIP RES.(1608) 1/10W J 4.7k Ω |
| R144 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R146 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R147 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R148 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R149 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R150 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R151 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R152 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R153 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R154 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R155 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R156 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R157 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R164 | 9HSRXAJR5Z0471 | CHIP RES.(1608) 1/10W J 470Ω |
| R165 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R172 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R173 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R174 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R175 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R176 | 9HSRXAJR5Z0101 | CHIP RES.(1608) 1/10W J 100Ω |
| R177 | 9HSRXAJR5Z0101 | CHIP RES.(1608) 1/10W J 100Ω |
| R178 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R179 | 9HSRXAJR5Z0101 | CHIP RES.(1608) 1/10W J 100Ω |
| R180 | 9HSRXAJR5Z0105 | CHIP RES.(1608) 1/10W J 1MΩ |
| R181 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R182 | 9HSRXAJR5Z0102 | CHIP RES.(1608) 1/10W J 1k Ω |
| R183 | 9HSRXAJR5Z0102 | CHIP RES.(1608) 1/10W J 1k Ω |
| R184 | 9HSRXAJR5Z0101 | CHIP RES.(1608) 1/10W J 100Ω |
| R185 | 9HSRXAJR5Z0101 | CHIP RES.(1608) 1/10W J 100Ω |
| R186 | 9HSRXAJR5Z0101 | CHIP RES.(1608) 1/10W J 100Ω |
| R187 | 9HSRXAJR5Z0101 | CHIP RES.(1608) 1/10W J 100Ω |

| Ref. No. | Part No. | Description |
|---|---|---|
| R188 | 9HSRXAJR5Z0101 | CHIP RES.(1608) 1/10W J 100Ω |
| R189 | 9HSRXAJR5Z0101 | CHIP RES.(1608) 1/10W J 100Ω |
| R201 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R202 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R203 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R204 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R205 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R206 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R207 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R208 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R209 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R210 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R211 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R212 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R213 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R214 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R215 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R216 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R217 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R218 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R219 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R220 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R221 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R222 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R223 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R224 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R225 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R226 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R227 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R228 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R229 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R230 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R231 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R232 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R251 | 9HSRXAFR5H2702 | CHIP RES.(1608) 1/10W F 27k Ω |
| R252 | 9HSRXAFR5H4701 | CHIP RES.(1608) 1/10W F 4.7k Ω |
| R253 | 9HSRXAFR5H4701 | CHIP RES.(1608) 1/10W F 4.7k Ω |
| R254 | 9HSRXAJR5Z0472 | CHIP RES.(1608) 1/10W J 4.7k Ω |
| R255 | 9HSRXAJR5Z0222 | CHIP RES.(1608) 1/10W J 2.2k Ω |
| R256 | 9HSRXAJR5Z0222 | CHIP RES.(1608) 1/10W J 2.2k Ω |
| R257 | 9HSRX2JR9Z05R6 | CHIP RES 1/2W J 5.6Ω |
| R259 | 9HSRXAJR5Z0181 | CHIP RES.(1608) 1/10W J 180Ω |
| R260 | 9HSRXAJR5Z0102 | CHIP RES.(1608) 1/10W J 1k Ω |
| R261 | 9HSRXAJR5Z0473 | CHIP RES.(1608) 1/10W J 47k Ω |
| R262 | 9HSRXAJR5Z0181 | CHIP RES.(1608) 1/10W J 180Ω |
| R263 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R264 | 9HSRX8JR6Z0223 | CHIP RES.(2125) 1/8W J 22k Ω |
| R265 | 9HSRXAJR5Z0101 | CHIP RES.(1608) 1/10W J 100Ω |
| R266 | 9HSRX8JR6Z0000 | CHIP RES.(2125) 1/8W 0Ω |
| R267 | 9HSRX8JR6Z0000 | CHIP RES.(2125) 1/8W 0Ω |
| R268 | 9HSRX8JR6Z0223 | CHIP RES.(2125) 1/8W J 22k Ω |
| R270 | 9HSRX2JR9Z0101 | CHIP RES. 1/2W J 100Ω |
| R272 | 9HSRX2JR9Z05R6 | CHIP RES 1/2W J 5.6Ω |
| R273 | 9HSRX2JR9Z0512 | CHIP RES 1/2W J 5.1k Ω |
| R275 | 9HSRXAJR5Z0101 | CHIP RES.(1608) 1/10W J 100Ω |
| R276 | 9HSRXAFR5H3602 | CHIP RES.(1608) 1/10W F 36k Ω |
| R277 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R278 | 9HSRXAFR5H5602 | CHIP RES.(1608) 1/10W F 56k Ω |
| R279 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R280 | 9HSRXAJR5Z0680 | CHIP RES.(1608) 1/10W J 68Ω |
| R281 | 9HSRXAJR5Z0680 | CHIP RES.(1608) 1/10W J 68Ω |
| R282 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R283 | 9HSRXAJR5Z0562 | CHIP RES.(1608) 1/10W J 5.6k Ω |
| R287 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R288 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R289 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R290 | 9HSRXAJR5Z0100 | CHIP RES.(1608) 1/10W J 10Ω |
| R291 | 9HSRXAJR5Z0100 | CHIP RES.(1608) 1/10W J 10Ω |
| R297 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |

| Ref. No. | Part No. | Description |
|---|---|---|
| R298 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R299 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R341 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R342 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R343 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R344 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R345 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R346 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R347 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R351 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R352 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R353 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R354 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R355 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R357 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R361 | 9HSRXAJR5Z0102 | CHIP RES.(1608) 1/10W J 1k Ω |
| R362 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R363 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R364 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R371 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R372 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R373 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R374 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R375 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R377 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R381 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R382 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R383 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R384 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R385 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R386 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R387 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R388 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R389 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R390 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R391 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R392 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R393 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R395 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| **MISCELLANEOUS** | | |
| X171 | 9HSXC276CDS002 | X'TAL SMD-49 27.000MHz |

# MAIN CBA + FUNCTION CBA [9HS1ESA10233]

| Ref. No. | Part No. | Description |
|---|---|---|
| | 9HS1ESA10233 | MAIN CBA + FUNCTION CBA |
| | | Consists of the following |
| | 9HS1ESA10233A | MAIN CBA |
| | 9HS1ESA10233B | FUNCTION CBA |

## MAIN CBA [9HS1ESA10233A]

| Ref. No. | Part No. | Description |
|---|---|---|
| **CAPACITORS** | | |
| C12 | 9HSE1AMASSL101 | ELECTROLYTIC CAP. 100µF/10V M H7 |
| C13 | 9HSE1JMASSL4R7 | ELECTROLYTIC CAP. 4.7µF/50V M H7 |
| C14 | 9HSHD1EJ3CH102 | CHIP CERAMIC CAP. CH J 1000pF/25V |
| C15 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C16 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C17 | 9HSHD1JK30B183 | CHIP CERAMIC CAP. B K 0.018µF/50V |
| C18 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C19 | 9HSE1AMASSL101 | ELECTROLYTIC CAP. 100µF/10V M H7 |
| C20 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C21 | 9HSHD1JK30B473 | CHIP CERAMIC CAP.(1608) B K 0.047µF/50V |
| C34 | 9HSE1JMASSL010 | ELECTROLYTIC CAP. 1µF/50V M H7 |
| C35 | 9HSHD1JJ3CH470 | CHIP CERAMIC CAP.(1608) CH J 47pF/50V |
| C36 | 9HSHD1EJ3CH102 | CHIP CERAMIC CAP. CH J 1000pF/25V |

| Ref. No. | Part No. | Description |
|---|---|---|
| C37 | 9HSHD1AZ30F105 | CHIP CERAMIC CAP. F Z 1µF/10V |
| C38 | 9HSE1AMASSL101 | ELECTROLYTIC CAP. 100µF/10V M H7 |
| C39 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C40 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C41 | 9HSE1JMASSLR47 | ELECTROLYTIC CAP. 0.47µF/50V M H7 |
| C42 | 9HSA1J103TU011 | CERAMIC CAP.(AX) B K 0.01µF/50V |
| C43 | 9HSHD1JJ3CH470 | CHIP CERAMIC CAP.(1608) CH J 47pF/50V |
| C44 | 9HSHD1JD3CH6R0 | CHIP CERAMIC CAP. CH D 6pF/50V |
| C401 | 9HSA1J104TU011 | CERAMIC CAP.(AX) B K 0.1µF/50V |
| C402 | 9HSE1CMASSL101 | ELECTROLYTIC CAP. 100µF/16V M H7 |
| C403 | 9HSE1CMASSL221 | ELECTROLYTIC CAP. 220µF/16V M H7 |
| C404 | 9HSE1JMASSL2R2 | ELECTROLYTIC CAP. 2.2µF/50V M H7 |
| C407 | 9HST2E154MS041 | PP CAP. 0.15µF/250V J |
| C409 | 9HSA3F100NR060 | CHIP CERAMIC CAP GRM42A5C3F100JW01L |
| C410 | 9HSA3F100NR060 | CHIP CERAMIC CAP GRM42A5C3F100JW01L |
| C411 | 9HSHD1JK30B473 | CHIP CERAMIC CAP.(1608) B K 0.047µF/50V |
| C412 | 9HSA3F100NR060 | CHIP CERAMIC CAP GRM42A5C3F100JW01L |
| C413 | 9HSA3F100NR060 | CHIP CERAMIC CAP GRM42A5C3F100JW01L |
| C414 | 9HSHD1JK30B473 | CHIP CERAMIC CAP.(1608) B K 0.047µF/50V |
| C415 | 9HSA3F100NR060 | CHIP CERAMIC CAP GRM42A5C3F100JW01L |
| C416 | 9HSA3F100NR060 | CHIP CERAMIC CAP GRM42A5C3F100JW01L |
| C417 | 9HSHD1JK30B473 | CHIP CERAMIC CAP.(1608) B K 0.047µF/50V |
| C418 | 9HSA3F100NR060 | CHIP CERAMIC CAP GRM42A5C3F100JW01L |
| C419 | 9HSA3F100NR060 | CHIP CERAMIC CAP GRM42A5C3F100JW01L |
| C420 | 9HSHD1JK30B473 | CHIP CERAMIC CAP.(1608) B K 0.047µF/50V |
| C421 | 9HSHD1AZ30F105 | CHIP CERAMIC CAP. F Z 1µF/10V |
| C422 | 9HSHD1AZ30F105 | CHIP CERAMIC CAP. F Z 1µF/10V |
| C423 | 9HSHD1AZ30F105 | CHIP CERAMIC CAP. F Z 1µF/10V |
| C424 | 9HSHD1AZ30F105 | CHIP CERAMIC CAP. F Z 1µF/10V |
| C425 | 9HSHD1AZ30F105 | CHIP CERAMIC CAP. F Z 1µF/10V |
| C426 | 9HSHD1AZ30F105 | CHIP CERAMIC CAP. F Z 1µF/10V |
| C427 | 9HSHD1AZ30F105 | CHIP CERAMIC CAP. F Z 1µF/10V |
| C428 | 9HSHD1AZ30F105 | CHIP CERAMIC CAP. F Z 1µF/10V |
| C429 | 9HSHD1AZ30F105 | CHIP CERAMIC CAP. F Z 1µF/10V |
| C430 | 9HSA1J104TU011 | CERAMIC CAP.(AX) B K 0.1µF/50V |
| C431 | 9HST2E154MS041 | PP CAP. 0.15µF/250V J |
| C433 | 9HSA3F100NR060 | CHIP CERAMIC CAP GRM42A5C3F100JW01L |
| C434 | 9HSA3F100NR060 | CHIP CERAMIC CAP GRM42A5C3F100JW01L |
| C435 | 9HSA3F100NR060 | CHIP CERAMIC CAP GRM42A5C3F100JW01L |
| C436 | 9HSA3F100NR060 | CHIP CERAMIC CAP GRM42A5C3F100JW01L |
| C437 | 9HSA3F100NR060 | CHIP CERAMIC CAP GRM42A5C3F100JW01L |
| C438 | 9HSA3F100NR060 | CHIP CERAMIC CAP GRM42A5C3F100JW01L |
| C439 | 9HSA3F100NR060 | CHIP CERAMIC CAP GRM42A5C3F100JW01L |
| C440 | 9HSA3F100NR060 | CHIP CERAMIC CAP GRM42A5C3F100JW01L |
| C501 | 9HSE1JMASSL220 | ELECTROLYTIC CAP. 22µF/50V M H7 |
| C502 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C505 | 9HSE1AMASSL221 | ELECTROLYTIC CAP. 220µF/10V M H7 |
| C506 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C507 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C509 | 9HSE1CMASSL101 | ELECTROLYTIC CAP. 100µF/16V M H7 |
| C510 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C512 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C513 | 9HSE0KMASSL221 | ELECTROLYTIC CAP. 220µF/6.3V M H7 |
| C514 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C517 | 9HSE0KMASSL221 | ELECTROLYTIC CAP. 220µF/6.3V M H7 |
| C518 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C521 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C522 | 9HSE0KMASSL221 | ELECTROLYTIC CAP. 220µF/6.3V M H7 |
| C523 | 9HSE1JMASSL2R2 | ELECTROLYTIC CAP. 2.2µF/50V M H7 |
| C524 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C527 | 9HSE1JMASSL100 | ELECTROLYTIC CAP. 10µF/50V M H7 |
| C528 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C533 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C536 | 9HSE0KMASSL331 | ELECTROLYTIC CAP. 330µF/6.3V M H7 |
| C538 | 9HSE1JMASSL100 | ELECTROLYTIC CAP. 10µF/50V M H7 |
| C539 | 9HSHD1JJ3CH101 | CHIP CERAMIC CAP.(1608) CH J 100pF/50V |
| C540 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C541 | 9HSE1CMASSL221 | ELECTROLYTIC CAP. 220µF/16V M H7 |
| C543 | 9HSE1CMASSL221 | ELECTROLYTIC CAP. 220µF/16V M H7 |

| Ref. No. | Part No. | Description |
|---|---|---|
| C544 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C601⚠ | 9HST2E104MS037 | METALLIZED FILM CAP. 0.1µF/250V |
| C602⚠ | 9HST2E104MS037 | METALLIZED FILM CAP. 0.1µF/250V |
| C603 | 9HSE1AMASSL101 | ELECTROLYTIC CAP. 100µF/10V M H7 |
| C605 | 9HSCD2JKP0B103 | CERAMIC CAP. B K 0.01µF/500V |
| C606 | 9HSCD2JKP0B103 | CERAMIC CAP. B K 0.01µF/500V |
| C608 | 9HSCD3DKP0B102 | CERAMIC CAP. B K 1000pF/2KV |
| C610⚠ | 9HSE2DMZPDL101 | ELECTROLYTIC CAP. 100µF/200V M |
| C612 | 9HSMA1JJS00103 | FILM CAP.(P) 0.01µF/50V J |
| C613 | 9HSMA1JJS00683 | FILM CAP.(P) 0.068µF/50V J |
| C614 | 9HSJW5.0T | PCB JUMPER D0.6-P5.0 |
| C615 | 9HSJW5.0T | PCB JUMPER D0.6-P5.0 |
| C630⚠ | 9HSE1EMZPDL222 | ELECTROLYTIC CAP. 2200µF/25V M |
| C632 | 9HSE1CMASSL221 | ELECTROLYTIC CAP. 220µF/16V M H7 |
| C633 | 9HSE1CMASSL221 | ELECTROLYTIC CAP. 220µF/16V M H7 |
| C634⚠ | 9HSE1EMZPDL222 | ELECTROLYTIC CAP. 2200µF/25V M |
| C635 | 9HSE1AMASTL471 | ELECTROLYTIC CAP. 470µF/10V M |
| C636 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C637⚠ | 9HSE1CMASDL471 | ELECTROLYTIC CAP. 470µF/16V M |
| C641⚠ | 9HSA2E472MR050 | SAFETY CAP. 4700pF/250V KX |
| C642⚠ | 9HSE1JMASSL100 | ELECTROLYTIC CAP. 10µF/50V M H7 |
| C644⚠ | 9HSE1JMASTL101 | ELECTROLYTIC CAP. 100µF/50V M |
| C645⚠ | 9HSE1JMASSL100 | ELECTROLYTIC CAP. 10µF/50V M H7 |
| C646 | 9HSMA1JJS00224 | MYLAR CAP. 0.22µF/50V J |
| C648 | 9HSE1JMASSL010 | ELECTROLYTIC CAP. 1µF/50V M H7 |
| C649 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C651 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C652 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C653 | 9HSHD1AZ30F105 | CHIP CERAMIC CAP. F Z 1µF/10V |
| C654⚠ | 9HSE2DMZPDL101 | ELECTROLYTIC CAP. 100µF/200V M |
| C657 | 9HSE1CMASSL470 | ELECTROLYTIC CAP. 47µF/16V M H7 |
| C659 | 9HSMA1JJS00223 | FILM CAP.(P) 0.022µF/50V J |
| C660 | 9HSMA1JJS00682 | FILM CAP.(P) 0.0068µF/50V J |
| C673 | 9HSE0KMASTL471 | ELECTROLYTIC CAP. 470µF/6.3V M |
| C701 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C703 | 9HSE1CMASSL470 | ELECTROLYTIC CAP. 47µF/16V M H7 |
| C704 | 9HSE1CMASSL470 | ELECTROLYTIC CAP. 47µF/16V M H7 |
| C705 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C707 | 9HSHD1EJ3CH102 | CHIP CERAMIC CAP. CH J 1000pF/25V |
| C708 | 9HSHD1EJ3CH102 | CHIP CERAMIC CAP. CH J 1000pF/25V |
| C709 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C711 | 9HSE1CMASSL470 | ELECTROLYTIC CAP. 47µF/16V M H7 |
| C712 | 9HSE1CMASSL470 | ELECTROLYTIC CAP. 47µF/16V M H7 |
| C714 | 9HSHD1AZ30F225 | CHIP CERAMIC CAP. F Z 2.2µF/10V |
| C715 | 9HSHD1JK30B332 | CHIP CERAMIC CAP.(1608) B K 3300pF/50V |
| C717 | 9HSHD1AZ30F225 | CHIP CERAMIC CAP. F Z 2.2µF/10V |
| C718 | 9HSHD1JK30B332 | CHIP CERAMIC CAP.(1608) B K 3300pF/50V |
| C720 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C722 | 9HSE1CMASSL470 | ELECTROLYTIC CAP. 47µF/16V M H7 |
| C724 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C726 | 9HSE1CMASSL470 | ELECTROLYTIC CAP. 47µF/16V M H7 |
| C728 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C730 | 9HSE1CMASSL470 | ELECTROLYTIC CAP. 47µF/16V M H7 |
| C732 | 9HSHD1AZ30F225 | CHIP CERAMIC CAP. F Z 2.2µF/10V |
| C733 | 9HSHD1JK30B332 | CHIP CERAMIC CAP.(1608) B K 3300pF/50V |
| C735 | 9HSHD1AZ30F225 | CHIP CERAMIC CAP. F Z 2.2µF/10V |
| C736 | 9HSHD1JK30B332 | CHIP CERAMIC CAP.(1608) B K 3300pF/50V |
| C738 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C739 | 9HSE1AMASSL101 | ELECTROLYTIC CAP. 100µF/10V M H7 |
| C740 | 9HSHD1JJ3CH101 | CHIP CERAMIC CAP.(1608) CH J 100pF/50V |
| C741 | 9HSHD1JJ3CH101 | CHIP CERAMIC CAP.(1608) CH J 100pF/50V |
| C781 | 9HSE1JMASSL100 | ELECTROLYTIC CAP. 10µF/50V M H7 |
| C782 | 9HSA1J104TU011 | CERAMIC CAP.(AX) B K 0.1µF/50V |
| C784 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C785 | 9HSE1AMASSL101 | ELECTROLYTIC CAP. 100µF/10V M H7 |
| C786 | 9HSE1CMASSL470 | ELECTROLYTIC CAP. 47µF/16V M H7 |
| C788 | 9HSCA1EZTFZ103 | CERAMIC CAP.(AX) F Z 0.01µF/25V |
| C801 | 9HSE1CMASDL471 | ELECTROLYTIC CAP. 470µF/16V M |
| C802 | 9HSE1CMASDL471 | ELECTROLYTIC CAP. 470µF/16V M |

| Ref. No. | Part No. | Description |
|---|---|---|
| C803 | 9HSMA1JJS00104 | FILM CAP.(P) 0.1µF/50V J |
| C804 | 9HSMA1JJS00104 | FILM CAP.(P) 0.1µF/50V J |
| C805 | 9HSE1JMASSL100 | ELECTROLYTIC CAP. 10µF/50V M H7 |
| C809 | 9HSE1JMASSL100 | ELECTROLYTIC CAP. 10µF/50V M H7 |
| C810 | 9HSHD1AZ30F105 | CHIP CERAMIC CAP. F Z 1µF/10V |
| C811 | 9HSE1CMASSL101 | ELECTROLYTIC CAP. 100µF/16V M H7 |
| C812 | 9HSHD1AZ30F105 | CHIP CERAMIC CAP. F Z 1µF/10V |
| C816 | 9HSHD1AZ30F105 | CHIP CERAMIC CAP. F Z 1µF/10V |
| C817 | 9HSHD1AZ30F105 | CHIP CERAMIC CAP. F Z 1µF/10V |
| C818 | 9HSE1CMZPDL222 | ELECTROLYTIC CAP. 2200µF/16V M |
| C819 | 9HSHD1JK30B222 | CHIP CERAMIC CAP. B K 2200pF/50V |
| C820 | 9HSHD1JK30B222 | CHIP CERAMIC CAP. B K 2200pF/50V |
| C851 | 9HSHD1JJ3CH101 | CHIP CERAMIC CAP.(1608) CH J 100pF/50V |
| C852 | 9HSHD1JJ3CH101 | CHIP CERAMIC CAP.(1608) CH J 100pF/50V |
| C853 | 9HSE1JMASSL2R2 | ELECTROLYTIC CAP. 2.2µF/50V M H7 |
| C854 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C855 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C856 | 9HSHD1AK30B334 | CHIP CERAMIC CAP.(1608) B K 0.33µF/10V |
| C857 | 9HSE1JMASSL2R2 | ELECTROLYTIC CAP. 2.2µF/50V M H7 |
| C858 | 9HSE1JMASSL2R2 | ELECTROLYTIC CAP. 2.2µF/50V M H7 |
| C859 | 9HSE1JMASSL4R7 | ELECTROLYTIC CAP. 4.7µF/50V M H7 |
| C860 | 9HSE1JMASSL100 | ELECTROLYTIC CAP. 10µF/50V M H7 |
| C861 | 9HSE1AMASSL101 | ELECTROLYTIC CAP. 100µF/10V M H7 |
| C862 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01µF/50V |
| C863 | 9HSE1JMASSL2R2 | ELECTROLYTIC CAP. 2.2µF/50V M H7 |
| C864 | 9HSHD1JK30B223 | CHIP CERAMIC CAP.(1608) B K 0.022µF/50V |
| C865 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C866 | 9HSHD1AZ30F225 | CHIP CERAMIC CAP. F Z 2.2µF/10V |
| C867 | 9HSHD1AZ30F225 | CHIP CERAMIC CAP. F Z 2.2µF/10V |
| C868 | 9HSHD1CK30B105 | CHIP CERAMIC CAP. B K 1µF/16V |
| C869 | 9HSHD1JK30B104 | CHIP CERAMIC CAP.(1608) B K 0.1µF/50V |
| C883 | 9HSCA1EZTFZ103 | CERAMIC CAP.(AX) F Z 0.01µF/25V |
| **CONNECTORS** | | |
| CN104 | 9HS3PHC06JG001 | PH CONNECTOR, TOP 6P B6B-PH-K-S |
| CN401 | 9HSB17D02AP001 | BACK LIGHT CONNECTOR 1717369-1 |
| CN402 | 9HSB17D02AP001 | BACK LIGHT CONNECTOR 1717369-1 |
| CN403 | 9HSB17D02AP001 | BACK LIGHT CONNECTOR 1717369-1 |
| CN404 | 9HSB17D02AP001 | BACK LIGHT CONNECTOR 1717369-1 |
| CN801 | 9HS383C02UG002 | STRAIGHT CONNECTOR BASE 00 8283 0212 00 000 |
| CN802 | 9HS383C02UG002 | STRAIGHT CONNECTOR BASE 00 8283 0212 00 000 |
| CN101A | 9HS3TWA09TG001 | TWG CONNECTOR 09P TWG-P09P-A1 |
| CN102A | 9HS3TWA23TG001 | TWG CONNECTOR 23P TWG-P23P-A1 |
| CN103A | 9HS3TWA23TG001 | TWG CONNECTOR 23P TWG-P23P-A1 |
| **DIODES** | | |
| D42 | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D43 | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D44 | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D402 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D403 | 9HSDTB0MTZJ9R1 | ZENER DIODE MTZJT-779.1B |
| D404⚠ | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D405⚠ | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D406⚠ | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D407⚠ | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D408 | 9HSDTB00MTZJ10 | ZENER DIODE MTZJT-7710B |
| D409 | 9HSDTB0MTZJ6R2 | ZENER DIODE MTZJT-776.2B |
| D410⚠ | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D411⚠ | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D412 | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D413 | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D414 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D415 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D420 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D421 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D422 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D423 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D428 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D430 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D432 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D433 | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |

| Ref. No. | Part No. | Description |
|---|---|---|
| D434 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D435 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D436 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D437 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D438 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D439 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D440 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D441 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D442 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D443 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D444 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D445 | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D446 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D447 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D448 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D449 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D450 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D451 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D452 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D453 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D454 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D455 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D456 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D457 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D458 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D459 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D460 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D461 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D462 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D463 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D464 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D465 | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D466 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D467 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D468 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D469 | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D470 | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D471 | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D480 | 9HSDTB0MTZJ9R1 | ZENER DIODE MTZJT-779.1B |
| D481 | 9HSJW5.0T | PCB JUMPER D0.6-P5.0 |
| D501⚠ | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D502 | 9HSDTB00MTZJ27 | ZENER DIODE MTZJT-7727B |
| D503 | 9HSDTB0MTZJ6R8 | ZENER DIODE MTZJT-776.8B |
| D504⚠ | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D505 | 9HSSZLA0TJY001 | IC:SHUNT REGULATOR KIA431-AT |
| D506 | 9HSDTB0MTZJ5R1 | ZENER DIODE MTZJT-775.1B |
| D509⚠ | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D510 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D511⚠ | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D512 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D514 | 9HSDPZERC81004 | SCHOTTKY BARRIER DIODE ERC81-004 |
| D515 | 9HSDTB0MTZJ8R2 | ZENER DIODE MTZJT-778.2B |
| D517 | 9HSDTB00MTZJ13 | ZENER DIODE MTZJT-7713B |
| D519 | 9HSDLZ001N5397 | DIODE 1N5397-B |
| D520 | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D521 | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D523 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D524 | 9HSDTB00MTZJ27 | ZENER DIODE MTZJT-7727B |
| D532 | 9HSDTB0MTZJ8R2 | ZENER DIODE MTZJT-778.2B |
| D533 | 9HSDTB0MTZJ8R2 | ZENER DIODE MTZJT-778.2B |
| D534 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D535 | 9HSDTB0MTZJ8R2 | ZENER DIODE MTZJT-778.2B |
| D536 | 9HSDTB0MTZJ8R2 | ZENER DIODE MTZJT-778.2B |
| D537 | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D538 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D539 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D540 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D541 | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D542 | 9HSDLZ001N5397 | DIODE 1N5397-B |

| Ref. No. | Part No. | Description |
|---|---|---|
| D543 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D547 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D549 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D605⚠ | 9HSDLZ001N5397 | DIODE 1N5397-B |
| D606⚠ | 9HSDLZ001N5397 | DIODE 1N5397-B |
| D607⚠ | 9HSDLZ001N5397 | DIODE 1N5397-B |
| D608⚠ | 9HSDLZ001N5397 | DIODE 1N5397-B |
| D609 | 9HSDTB0MTZJ5R6 | ZENER DIODE MTZJT-775.6B |
| D611⚠ | 9HSDTB00MTZJ22 | ZENER DIODE MTZJT-7722B |
| D612 | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D613 | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D615⚠ | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D616⚠ | 9HSDTB00MTZJ33 | ZENER DIODE MTZJT-7733B |
| D620 | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D624 | 9HSDTB00MTZJ33 | ZENER DIODE MTZJT-7733B |
| D630⚠ | 9HSDLZERC84009 | SCHOTTKY BARRIER DIODE ERC84-009 |
| D631⚠ | 9HSDLZ000FR154 | DIODE FR154 |
| D632⚠ | 9HSDLZERC84009 | SCHOTTKY BARRIER DIODE ERC84-009 |
| D633⚠ | 9HSDPZERA81004 | SCHOTTKY BARRIER DIODE ERA81-004 |
| D634 | 9HSDTB00MTZJ16 | ZENER DIODE MTZJT-7716B |
| D635⚠ | 9HSDPZERC81004 | SCHOTTKY BARRIER DIODE ERC81-004 |
| D636 | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D640 | 9HSDLZ000FR104 | DIODE FR104-B |
| D641 | 9HSDTB00MTZJ36 | ZENER DIODE MTZJT-7736B |
| D642⚠ | 9HSDTZ001SS133 | SWITCHING DIODE 1SS133(T-77) |
| D643⚠ | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D644⚠ | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D645⚠ | 9HSDLZ000FR154 | DIODE FR154 |
| D646⚠ | 9HSDQZ0001ZC43 | DIODE 1ZC43 |
| D647⚠ | 9HSDTB00MTZJ39 | ZENER DIODE MTZJT-7739B |
| D648⚠ | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D649⚠ | 9HSSZLA0TJY001 | IC:SHUNT REGULATOR KIA431-AT |
| D650 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D651 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D653⚠ | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D668 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D701 | 9HSDTB0MTZJ8R2 | ZENER DIODE MTZJT-778.2B |
| D702 | 9HSDTB0MTZJ8R2 | ZENER DIODE MTZJT-778.2B |
| D703 | 9HSDTB0MTZJ8R2 | ZENER DIODE MTZJT-778.2B |
| D801 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D802 | 9HSD1Z001SS400 | SWITCHING DIODE 1SS400 |
| D803 | 9HSDTB0MTZJ6R2 | ZENER DIODE MTZJT-776.2B |
| D810 | 9HSDTB0MTZJ3R3 | ZENER DIODE MTZJT-773.3B |
| **ICs** | | |
| IC11 | 9HSSZBA0SHT019 | IC:VIF/SIF M61113FP |
| IC502 | 9HSSZBA0SSH014 | VOLTAGE REGULATOR PQ033EF01SZ |
| IC503 | 9HSSZBA0SSH026 | VOLTAGE REGULATOR PQ070XF01SZ |
| IC504 | 9HSSZBA0SSH026 | VOLTAGE REGULATOR PQ070XF01SZ |
| IC505 | 9HSSBLA0TMM018 | IC PST600L |
| IC506 | 9HSSBLA0ZJR024 | IC NJM78L09 |
| IC601⚠ | 9HSPEW0PS25011 | PHOTOCOUPLER PS2501-1W |
| IC603⚠ | 9HSSBBA0SJY011 | VOLTAGE REGULATOR KIA7805API |
| IC604 | 9HSSBBA0SJY011 | VOLTAGE REGULATOR KIA7805API |
| IC781 | 9HSSZBA0TTS131 | IC TC4053BF(EL.N) |
| IC801 | 9HSSZBA0SMS017 | IC AN17812A |
| IC851 | 9HSSZBA0TMS003 | IC:MTS DECORDER AN5832SA-E1 |
| IC852 | 9HSSZBA0TTS096 | IC:SWITCHING TC4052BF(EL) |
| **COILS** | | |
| L11 | 9HSLARKBSTU220 | INDUCTOR 22µH-K-5FT |
| L13 | 9HSLAXJATTUR68 | INDUCTOR 0.68µH-J-26T |
| L15 | 9HSLAXJATTU101 | INDUCTOR 100µH-J-26T |
| L31 | 9HSLAXJATTU220 | INDUCTOR 22µH-J-26T |
| L32 | 9HSLAXJATTU120 | INDUCTOR 12µH-J-26T |
| L33 | 9HSLAXJATTU180 | INDUCTOR 18µH-J-26T |
| L34 | 9HSLAXJATTU181 | INDUCTOR 180µH-J-26T |
| L401 | 9HSLC150MMS003 | CHOKE COIL ELC10D150EM |
| L403 | 9HSLC150MMS003 | CHOKE COIL ELC10D150EM |
| L501 | 9HSLBD00PKV007 | CHOKE COIL 47µH-K |
| L601⚠ | 9HSLBG00ZTU012 | LINE FILTER TLF14CB3321R0 |

| Ref. No. | Part No. | Description |
|---|---|---|
| L602⚠ | 9HSLBG00ZTU012 | LINE FILTER TLF14CB3321R0 |
| L630 | 9HSJW7.5T | PCB JUMPER D0.6-P7.5 |
| L632 | 9HSLAXJATTU220 | INDUCTOR 22μH-J-26T |
| L701 | 9HSJW5.0T | PCB JUMPER D0.6-P5.0 |
| L851 | 9HSJW5.0T | PCB JUMPER D0.6-P5.0 |
| **TRANSISTORS** | | |
| Q31 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q401⚠ | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q403 | 9HSQSZ00BA1F4M | RES. BUILT-IN TRANSISTOR BA1F4M-T |
| Q404 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q405 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q406 | 9HSQSF02SA1175 | TRANSISTOR 2SA1175(F) |
| Q407⚠ | 9HSQS002SC2120 | TRANSISTOR 2SC2120-O-TPE2 |
| Q408 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q409 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q410 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q411⚠ | 9HSFVZ2SK2229Q | FET 2SK2229(TP,Q) |
| Q412⚠ | 9HSFVZ2SK2229Q | FET 2SK2229(TP,Q) |
| Q415⚠ | 9HSFVZ2SK2229Q | FET 2SK2229(TP,Q) |
| Q416⚠ | 9HSFVZ2SK2229Q | FET 2SK2229(TP,Q) |
| Q419 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q420 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q421 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q422 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q423 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q424 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q425 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q426 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q427 | 9HSQWZ02SA1887 | TRANSISTOR 2SA1887 |
| Q428 | 9HSQS002SC2120 | TRANSISTOR 2SC2120-O-TPE2 |
| Q501 | 9HSQ1Q02SC4081 | TRANSISTOR 2SC4081 T106 Q |
| Q502 | 9HSQ1R2SA1576A | TRANSISTOR 2SA1576A T106R |
| Q503 | 9HS2SD1913R*** | TRANSISTOR 2SD1913(R) |
| Q504 | 9HSQ1R2SA1576A | TRANSISTOR 2SA1576A T106R |
| Q505 | 9HSQS002SC2120 | TRANSISTOR 2SC2120-O-TPE2 |
| Q507 | 9HS2SD1913R*** | TRANSISTOR 2SD1913(R) |
| Q508 | 9HSQSZ00BA1F4M | RES. BUILT-IN TRANSISTOR BA1F4M-T |
| Q509⚠ | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q511 | 9HSQSZ00BA1F4M | RES. BUILT-IN TRANSISTOR BA1F4M-T |
| Q512 | 9HSQSF02SA1175 | TRANSISTOR 2SA1175(F) |
| Q513 | 9HSQS002SC2120 | TRANSISTOR 2SC2120-O-TPE2 |
| Q514 | 9HSQSZ00BA1F4M | RES. BUILT-IN TRANSISTOR BA1F4M-T |
| Q515 | 9HS2SD1913R*** | TRANSISTOR 2SD1913(R) |
| Q516 | 9HSQ1R2SA1576A | TRANSISTOR 2SA1576A T106R |
| Q517 | 9HSQSZ00BA1F4M | RES. BUILT-IN TRANSISTOR BA1F4M-T |
| Q601⚠ | 9HSFWZ2SK3869Q | FET 2SK3869(Q) |
| Q603⚠ | 9HSQS002SC2120 | TRANSISTOR 2SC2120-O-TPE2 |
| Q633 | 9HSQ1Q02SC4081 | TRANSISTOR 2SC4081 T106 Q |
| Q701 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q702 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q703 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q704 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q705 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q706 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q707 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q708 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q709 | 9HSQSF02SA1175 | TRANSISTOR 2SA1175(F) |
| Q802 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| Q803 | 9HSQSF02SA1175 | TRANSISTOR 2SA1175(F) |
| **RESISTORS** | | |
| R11 | 9HSRXAJR5Z0101 | CHIP RES.(1608) 1/10W J 100Ω |
| R12 | 9HSRXAJR5Z0101 | CHIP RES.(1608) 1/10W J 100Ω |
| R16 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R17 | 9HSRXAJR5Z0472 | CHIP RES.(1608) 1/10W J 4.7k Ω |
| R20 | 9HSCX4JATZ0224 | CARBON RES. 1/4W J 220k Ω |
| R21 | 9HSRXAJR5Z0104 | CHIP RES.(1608) 1/10W J 100k Ω |
| R22 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R24 | 9HSRXAJR5Z0683 | CHIP RES.(1608) 1/10W J 68k Ω |
| R30 | 9HSCX4JATZ0104 | CARBON RES. 1/4W J 100k Ω |

| Ref. No. | Part No. | Description |
|---|---|---|
| R33 | 9HSRXAJR5Z0181 | CHIP RES.(1608) 1/10W J 180Ω |
| R34 | 9HSRXAJR5Z0151 | CHIP RES.(1608) 1/10W J 150Ω |
| R37 | 9HSRXAJR5Z0221 | CHIP RES.(1608) 1/10W J 220Ω |
| R41 | 9HSRXAJR5Z0682 | CHIP RES.(1608) 1/10W J 6.8k Ω |
| R43 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R45 | 9HSCX4JATZ0103 | CARBON RES. 1/4W J 10k Ω |
| R046 | 9HSCX4JATZ0122 | CARBON RES. 1/4W J 1.2k Ω |
| R63 | 9HSCX4JATZ0101 | CARBON RES. 1/4W J 100Ω |
| R65 | 9HSRXAJR5Z0471 | CHIP RES.(1608) 1/10W J 470Ω |
| R403 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R404 | 9HSCX4JATZ0103 | CARBON RES. 1/4W J 10k Ω |
| R406 | 9HSCX4JATZ0562 | CARBON RES. 1/4W J 5.6k Ω |
| R407 | 9HSRXAJR5Z0152 | CHIP RES.(1608) 1/10W J 1.5k Ω |
| R408 | 9HSRXAJR5Z0153 | CHIP RES.(1608) 1/10W J 15k Ω |
| R409 | 9HSRXAJR5Z0222 | CHIP RES.(1608) 1/10W J 2.2k Ω |
| R410 | 9HSCX4JATZ0331 | CARBON RES. 1/4W J 330Ω |
| R411 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R412 | 9HSRXAJR5Z0470 | CHIP RES.(1608) 1/10W J 47Ω |
| R413 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R414 | 9HSRXAJR5Z0333 | CHIP RES.(1608) 1/10W J 33k Ω |
| R415 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R416 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R417 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R418 | 9HSRXAJR5Z0222 | CHIP RES.(1608) 1/10W J 2.2k Ω |
| R419 | 9HSRXAJR5Z0222 | CHIP RES.(1608) 1/10W J 2.2k Ω |
| R420 | 9HSRXAJR5Z0562 | CHIP RES.(1608) 1/10W J 5.6k Ω |
| R421 | 9HSRXAJR5Z0330 | CHIP RES.(1608) 1/10W J 33Ω |
| R422 | 9HSCX4JATZ0560 | CARBON RES. 1/4W J 56Ω |
| R423 | 9HSRXAJR5Z0331 | CHIP RES.(1608) 1/10W J 330Ω |
| R424 | 9HSRXAJR5Z0331 | CHIP RES.(1608) 1/10W J 330Ω |
| R425 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R426 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R427 | 9HSRXAJR5Z0332 | CHIP RES.(1608) 1/10W J 3.3k Ω |
| R428 | 9HSRXAJR5Z0332 | CHIP RES.(1608) 1/10W J 3.3k Ω |
| R429 | 9HSRXAJR5Z0470 | CHIP RES.(1608) 1/10W J 47Ω |
| R430 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R440 | 9HSRXAJR5Z0560 | CHIP RES.(1608) 1/10W J 56Ω |
| R441 | 9HSRXAJR5Z0331 | CHIP RES.(1608) 1/10W J 330Ω |
| R442 | 9HSRXAJR5Z0331 | CHIP RES.(1608) 1/10W J 330Ω |
| R443 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R444 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R445 | 9HSRXAJR5Z0332 | CHIP RES.(1608) 1/10W J 3.3k Ω |
| R446 | 9HSRXAJR5Z0332 | CHIP RES.(1608) 1/10W J 3.3k Ω |
| R447 | 9HSRXAJR5Z0470 | CHIP RES.(1608) 1/10W J 47Ω |
| R448 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R458 | 9HSRXAJR5Z0391 | CHIP RES.(1608) 1/10W J 390Ω |
| R459 | 9HSRXAJR5Z0391 | CHIP RES.(1608) 1/10W J 390Ω |
| R460 | 9HSRXAJR5Z0391 | CHIP RES.(1608) 1/10W J 390Ω |
| R461 | 9HSRXAJR5Z0391 | CHIP RES.(1608) 1/10W J 390Ω |
| R462 | 9HSRXAJR5Z0391 | CHIP RES.(1608) 1/10W J 390Ω |
| R463 | 9HSRXAJR5Z0391 | CHIP RES.(1608) 1/10W J 390Ω |
| R464 | 9HSRXAJR5Z0391 | CHIP RES.(1608) 1/10W J 390Ω |
| R465 | 9HSRXAJR5Z0391 | CHIP RES.(1608) 1/10W J 390Ω |
| R466 | 9HSRXAJR5Z0102 | CHIP RES.(1608) 1/10W J 1k Ω |
| R467 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R468 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R469 | 9HSRXAJR5Z0102 | CHIP RES.(1608) 1/10W J 1k Ω |
| R470 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R471 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R472 | 9HSRXAJR5Z0102 | CHIP RES.(1608) 1/10W J 1k Ω |
| R473 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R474 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R475 | 9HSRXAJR5Z0102 | CHIP RES.(1608) 1/10W J 1k Ω |
| R476 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R477 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R478 | 9HSRXAJR5Z0102 | CHIP RES.(1608) 1/10W J 1k Ω |
| R479 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R480 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R481 | 9HSRXAJR5Z0102 | CHIP RES.(1608) 1/10W J 1k Ω |

| Ref. No. | Part No. | Description |
|---|---|---|
| R482 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R483 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R484 | 9HSRXAJR5Z0102 | CHIP RES.(1608) 1/10W J 1k Ω |
| R485 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R486 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R487 | 9HSRXAJR5Z0102 | CHIP RES.(1608) 1/10W J 1k Ω |
| R488 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R489 | 9HSCX4JATZ0103 | CARBON RES. 1/4W J 10k Ω |
| R490 | 9HSCX4JATZ0152 | CARBON RES. 1/4W J 1.5k Ω |
| R491⚠ | 9HSN02331KE009 | METAL OXIDE FILM RES 2W J 330Ω |
| R492 | 9HSN01102KE009 | METAL OXIDE FILM RES. 1W J 1k Ω |
| R493 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R494 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R503 | 9HSCX4JATZ0391 | CARBON RES. 1/4W J 390Ω |
| R504 | 9HSCX4JATZ0471 | CARBON RES. 1/4W J 470Ω |
| R505 | 9HSRXAJR5Z0272 | CHIP RES.(1608) 1/10W J 2.7k Ω |
| R510 | 9HSRXAJR5Z0333 | CHIP RES.(1608) 1/10W J 33k Ω |
| R511 | 9HSRXAFR5H1501 | CHIP RES.(1608) 1/10W F 1.5k Ω |
| R512 | 9HSRXAFR5H1501 | CHIP RES.(1608) 1/10W F 1.5k Ω |
| R513 | 9HSJW5.0T | PCB JUMPER D0.6-P5.0 |
| R514 | 9HSCX4JATZ0681 | CARBON RES. 1/4W J 680Ω |
| R517 | 9HSRXAJR5Z0152 | CHIP RES.(1608) 1/10W J 1.5k Ω |
| R518⚠ | 9HSCX4JATZ0563 | CARBON RES. 1/4W J 56k Ω |
| R519⚠ | 9HSCX4JATZ0473 | CARBON RES. 1/4W J 47k Ω |
| R521 | 9HSJW5.0T | PCB JUMPER D0.6-P5.0 |
| R522 | 9HSCX4JATZ0153 | CARBON RES. 1/4W J 15k Ω |
| R523 | 9HSRXAJR5Z0182 | CHIP RES.(1608) 1/10W J 1.8k Ω |
| R539 | 9HSCX4JATZ0471 | CARBON RES. 1/4W J 470Ω |
| R540 | 9HSCX4JATZ0152 | CARBON RES. 1/4W J 1.5k Ω |
| R543 | 9HSRXAFR5H1801 | CHIP RES.(1608) 1/10W F 1.8k Ω |
| R544 | 9HSRXAFR5H3901 | CHIP RES.(1608) 1/10W F 3.9k Ω |
| R545 | 9HSRXAJR5Z01R0 | CHIP RES.(1608) 1/10W J 1Ω |
| R546 | 9HSRXAJR5Z0472 | CHIP RES.(1608) 1/10W J 4.7k Ω |
| R547 | 9HSCX4JATZ0473 | CARBON RES. 1/4W J 47k Ω |
| R548 | 9HSN02561KE009 | METAL OXIDE FILM RES. 2W J 560Ω |
| R549 | 9HSRXAJR5Z0333 | CHIP RES.(1608) 1/10W J 33k Ω |
| R552 | 9HSN01JZQZ01R0 | METAL OXIDE RES. 1W J 1.0Ω |
| R555 | 9HSRXAFR5H9101 | CHIP RES.(1608) 1/10W F 9.1k Ω |
| R556 | 9HSRXAFR5H5601 | CHIP RES.(1608) 1/10W F 5.6k Ω |
| R557 | 9HSRXAJR5Z0392 | CHIP RES.(1608) 1/10W J 3.9k Ω |
| R558 | 9HSN022R2KE009 | METAL OXIDE FILM RES. 2W J 2.2Ω |
| R561 | 9HSRXAFR5H1500 | CHIP RES.(1608) 1/10W F 150Ω |
| R570 | 9HSRXAJR5Z0562 | CHIP RES.(1608) 1/10W J 5.6k Ω |
| R571 | 9HSN021R0KE009 | METAL OXIDE FILM RES. 2W J 1Ω |
| R572 | 9HSRXAJR5Z0223 | CHIP RES.(1608) 1/10W J 22k Ω |
| R573 | 9HSRXAJR5Z0124 | CHIP RES.(1608) 1/10W J 120k Ω |
| R575 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R577 | 9HSJW5.0T | PCB JUMPER D0.6-P5.0 |
| R578 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R579 | 9HSN02152KE009 | METAL OXIDE FILM RES 2W J 1.5k Ω |
| R580 | 9HSRXAJR5Z0152 | CHIP RES.(1608) 1/10W J 1.5k Ω |
| R581 | 9HSRXAJR5Z0223 | CHIP RES.(1608) 1/10W J 22k Ω |
| R582 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R583 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R584 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R585 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R586 | 9HSJW5.0T | PCB JUMPER D0.6-P5.0 |
| R587 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| R601⚠ | 9HSW031R2PG007 | CEMENT RES. 3W K 1.2Ω |
| R603⚠ | 9HSCX4JATZ0394 | CARBON RES. 1/4W J 390k Ω |
| R604 | 9HSCX4JATZ0394 | CARBON RES. 1/4W J 390k Ω |
| R605 | 9HSCX4JATZ0394 | CARBON RES. 1/4W J 390k Ω |
| R606 | 9HSJW5.0T | PCB JUMPER D0.6-P5.0 |
| R607 | 9HSCX4JATZ0221 | CARBON RES. 1/4W J 220Ω |
| R608 | 9HSCX4JATZ0221 | CARBON RES. 1/4W J 220Ω |
| R609 | 9HSCX4JATZ0394 | CARBON RES. 1/4W J 390k Ω |
| R610 | 9HSCX4JATZ0181 | CARBON RES. 1/4W J 180Ω |
| R613 | 9HSN02R68KE009 | METAL OXIDE FILM RES. 2W J 0.68Ω |
| R620 | 9HSCX4JATZ0151 | CARBON RES. 1/4W J 150Ω |

| Ref. No. | Part No. | Description |
|---|---|---|
| R621 | 9HSCX4JATZ0821 | CARBON RES. 1/4W J 820Ω |
| R622 | 9HSJW5.0T | PCB JUMPER D0.6-P5.0 |
| R623 | 9HSCX4JATZ0222 | CARBON RES. 1/4W J 2.2k Ω |
| R633 | 9HSRXAJR5Z0473 | CHIP RES.(1608) 1/10W J 47k Ω |
| R634⚠ | 9HSRXAJR5Z0153 | CHIP RES.(1608) 1/10W J 15k Ω |
| R635 | 9HSRXAJR5Z0273 | CHIP RES.(1608) 1/10W J 27k Ω |
| R636 | 9HSJW5.0T | PCB JUMPER D0.6-P5.0 |
| R637 | 9HSRXAJR5Z0222 | CHIP RES.(1608) 1/10W J 2.2k Ω |
| R642⚠ | 9HSRXAJR5Z0273 | CHIP RES.(1608) 1/10W J 27k Ω |
| R643⚠ | 9HSCX4JATZ0274 | CARBON RES. 1/4W J 270k Ω |
| R645 | 9HSCX4JATZ0391 | CARBON RES. 1/4W J 390Ω |
| R646 | 9HSCX4JATZ0681 | CARBON RES. 1/4W J 680Ω |
| R647 | 9HSRXAFR5H1501 | CHIP RES.(1608) 1/10W F 1.5k Ω |
| R648 | 9HSRXAJR5Z0132 | CHIP RES.(1608) 1/10W J 1.3k Ω |
| R650 | 9HSRXAJR5Z0202 | CHIP RES.(1608) 1/10W J 2k Ω |
| R651 | 9HSRXAJR5Z0202 | CHIP RES.(1608) 1/10W J 2k Ω |
| R652 | 9HSRXAFR5H2700 | CHIP RES. 1/10W F 270Ω |
| R653 | 9HSRXAFR5H1001 | CHIP RES.(100PPM) 1/10W F 1.0k Ω |
| R654 | 9HSRXAFR5H1201 | CHIP RES. 1/10W F 1.2k Ω |
| R655 | 9HSRXAJR5Z0104 | CHIP RES.(1608) 1/10W J 100k Ω |
| R656 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R658 | 9HSCX4JATZ0122 | CARBON RES. 1/4W J 1.2k Ω |
| R702 | 9HSRXAJR5Z0391 | CHIP RES.(1608) 1/10W J 390Ω |
| R703 | 9HSRXAJR5Z0333 | CHIP RES.(1608) 1/10W J 33k Ω |
| R705 | 9HSRXAJR5Z0393 | CHIP RES.(1608) 1/10W J 39k Ω |
| R707 | 9HSCX4JATZ0101 | CARBON RES. 1/4W J 100Ω |
| R708 | 9HSRXAJR5Z0750 | CHIP RES.(1608) 1/10W J 75Ω |
| R710 | 9HSRXAJR5Z0391 | CHIP RES.(1608) 1/10W J 390Ω |
| R711 | 9HSRXAJR5Z0333 | CHIP RES.(1608) 1/10W J 33k Ω |
| R713 | 9HSRXAJR5Z0393 | CHIP RES.(1608) 1/10W J 39k Ω |
| R715 | 9HSRXAJR5Z0101 | CHIP RES.(1608) 1/10W J 100Ω |
| R716 | 9HSRXAJR5Z0750 | CHIP RES.(1608) 1/10W J 75Ω |
| R718 | 9HSRXAJR5Z0391 | CHIP RES.(1608) 1/10W J 390Ω |
| R719 | 9HSRXAJR5Z0333 | CHIP RES.(1608) 1/10W J 33k Ω |
| R721 | 9HSRXAJR5Z0393 | CHIP RES.(1608) 1/10W J 39k Ω |
| R723 | 9HSRXAJR5Z0101 | CHIP RES.(1608) 1/10W J 100Ω |
| R724 | 9HSRXAJR5Z0750 | CHIP RES.(1608) 1/10W J 75Ω |
| R725 | 9HSRXAJR5Z0183 | CHIP RES.(1608) 1/10W J 18k Ω |
| R726 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R727 | 9HSRXAJR5Z0473 | CHIP RES.(1608) 1/10W J 47k Ω |
| R728 | 9HSRXAJR5Z0183 | CHIP RES.(1608) 1/10W J 18k Ω |
| R729 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R730 | 9HSRXAJR5Z0473 | CHIP RES.(1608) 1/10W J 47k Ω |
| R732 | 9HSRXAJR5Z0391 | CHIP RES.(1608) 1/10W J 390Ω |
| R733 | 9HSRXAJR5Z0333 | CHIP RES.(1608) 1/10W J 33k Ω |
| R735 | 9HSRXAJR5Z0393 | CHIP RES.(1608) 1/10W J 39k Ω |
| R737 | 9HSRXAJR5Z0101 | CHIP RES.(1608) 1/10W J 100Ω |
| R738 | 9HSRXAJR5Z0750 | CHIP RES.(1608) 1/10W J 75Ω |
| R740 | 9HSRXAJR5Z0391 | CHIP RES.(1608) 1/10W J 390Ω |
| R741 | 9HSRXAJR5Z0333 | CHIP RES.(1608) 1/10W J 33k Ω |
| R743 | 9HSRXAJR5Z0393 | CHIP RES.(1608) 1/10W J 39k Ω |
| R745 | 9HSCX4JATZ0101 | CARBON RES. 1/4W J 100Ω |
| R746 | 9HSRXAJR5Z0750 | CHIP RES.(1608) 1/10W J 75Ω |
| R748 | 9HSRXAJR5Z0391 | CHIP RES.(1608) 1/10W J 390Ω |
| R749 | 9HSRXAJR5Z0333 | CHIP RES.(1608) 1/10W J 33k Ω |
| R751 | 9HSRXAJR5Z0393 | CHIP RES.(1608) 1/10W J 39k Ω |
| R753 | 9HSRXAJR5Z0101 | CHIP RES.(1608) 1/10W J 100Ω |
| R754 | 9HSCX4JATZ0750 | CARBON RES. 1/4W J 75Ω |
| R755 | 9HSRXAJR5Z0183 | CHIP RES.(1608) 1/10W J 18k Ω |
| R756 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R757 | 9HSRXAJR5Z0473 | CHIP RES.(1608) 1/10W J 47k Ω |
| R758 | 9HSRXAJR5Z0183 | CHIP RES.(1608) 1/10W J 18k Ω |
| R759 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R760 | 9HSRXAJR5Z0473 | CHIP RES.(1608) 1/10W J 47k Ω |
| R781 | 9HSCX4JATZ0103 | CARBON RES. 1/4W J 10k Ω |
| R782 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R783 | 9HSCX4JATZ0561 | CARBON RES. 1/4W J 560Ω |
| R784 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R785 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |

| Ref. No. | Part No. | Description |
|---|---|---|
| R786 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R787 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R788 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R789 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R791 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R792 | 9HSCX4JATZ0103 | CARBON RES. 1/4W J 10k Ω |
| R798 | 9HSRXAJR5Z0223 | CHIP RES.(1608) 1/10W J 22k Ω |
| R799 | 9HSRXAJR5Z0223 | CHIP RES.(1608) 1/10W J 22k Ω |
| R801 | 9HSCX2JZQZ0101 | CARBON RES. 1/2W J 100Ω |
| R802 | 9HSCX2JZQZ0101 | CARBON RES. 1/2W J 100Ω |
| R803 | 9HSRXAJR5Z0101 | CHIP RES.(1608) 1/10W J 100Ω |
| R804 | 9HSRXAJR5Z0101 | CHIP RES.(1608) 1/10W J 100Ω |
| R805⚠ | 9HSN022R7KE009 | METAL OXIDE FILM RES. 2W J 2.7Ω |
| R806 | 9HSRXAJR5Z0821 | CHIP RES.(1608) 1/10W J 820Ω |
| R807⚠ | 9HSN025R6KE009 | METAL OXIDE FILM RES 2W J 5.6Ω |
| R808 | 9HSRXAJR5Z0182 | CHIP RES.(1608) 1/10W J 1.8k Ω |
| R809 | 9HSRXAJR5Z0472 | CHIP RES.(1608) 1/10W J 4.7k Ω |
| R810 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R811 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R812 | 9HSCX4JATZ0331 | CARBON RES. 1/4W J 330Ω |
| R813 | 9HSRXAJR5Z0272 | CHIP RES.(1608) 1/10W J 2.7k Ω |
| R814 | 9HSRXAJR5Z0473 | CHIP RES.(1608) 1/10W J 47k Ω |
| R816 | 9HSRXAJR5Z0272 | CHIP RES.(1608) 1/10W J 2.7k Ω |
| R817 | 9HSRXAJR5Z0473 | CHIP RES.(1608) 1/10W J 47k Ω |
| R818 | 9HSRXAJR5Z0562 | CHIP RES.(1608) 1/10W J 5.6k Ω |
| R820 | 9HSRXAJR5Z0223 | CHIP RES.(1608) 1/10W J 22k Ω |
| R821 | 9HSRXAJR5Z0223 | CHIP RES.(1608) 1/10W J 22k Ω |
| R822 | 9HSRXAJR5Z0223 | CHIP RES.(1608) 1/10W J 22k Ω |
| R823 | 9HSRXAJR5Z0223 | CHIP RES.(1608) 1/10W J 22k Ω |
| R824 | 9HSRXAJR5Z0223 | CHIP RES.(1608) 1/10W J 22k Ω |
| R825 | 9HSRXAJR5Z0223 | CHIP RES.(1608) 1/10W J 22k Ω |
| R826 | 9HSRXAJR5Z0223 | CHIP RES.(1608) 1/10W J 22k Ω |
| R827 | 9HSRXAJR5Z0223 | CHIP RES.(1608) 1/10W J 22k Ω |
| R829 | 9HSRXAJR5Z0223 | CHIP RES.(1608) 1/10W J 22k Ω |
| R830 | 9HSRXAJR5Z0223 | CHIP RES.(1608) 1/10W J 22k Ω |
| R831 | 9HSRXAJR5Z0223 | CHIP RES.(1608) 1/10W J 22k Ω |
| R832 | 9HSRXAJR5Z0223 | CHIP RES.(1608) 1/10W J 22k Ω |
| R833 | 9HSRXAJR5Z0223 | CHIP RES.(1608) 1/10W J 22k Ω |
| R834 | 9HSCX4JATZ0223 | CARBON RES. 1/4W J 22k Ω |
| R837 | 9HSRXAJR5Z0102 | CHIP RES.(1608) 1/10W J 1k Ω |
| R838 | 9HSRXAJR5Z0123 | CHIP RES.(1608) 1/10W J 12k Ω |
| R839 | 9HSRXAJR5Z0123 | CHIP RES.(1608) 1/10W J 12k Ω |
| R851 | 9HSCX4JATZ0101 | CARBON RES. 1/4W J 100Ω |
| R852 | 9HSCX4JATZ0101 | CARBON RES. 1/4W J 100Ω |
| R855 | 9HSRXAJR5Z0332 | CHIP RES.(1608) 1/10W J 3.3k Ω |
| R857 | 9HSRXAJR5Z0184 | CHIP RES.(1608) 1/10W J 180k Ω |
| R893 | 9HSRXAJR5Z0222 | CHIP RES.(1608) 1/10W J 2.2k Ω |
| **MISCELLANEOUS** | | |
| AC601⚠ | 9HSAC0172LW015 | AC CORD PB8K9F4970AA057 |
| B6 | 9HS1EM420281 | HEAT SINK PJT ASSEMBLY L0170UA |
| B7 | 9HS1EM320080 | SHIELD BOX TOP L0371UB |
| B8 | 9HS1EM320081 | SHIELD BOX BOTTOM L0371UB |
| BC401 | 9HSLBF00ZTU021 | BEAD INDUCTORS FBR07HA121TB-00 |
| BC602 | 9HSLBF00ZTU021 | BEAD INDUCTORS FBR07HA121TB-00 |
| BC632 | 9HSJW5.0T | PCB JUMPER D0.6-P5.0 |
| BC637 | 9HSJW5.0T | PCB JUMPER D0.6-P5.0 |
| BC638 | 9HSJW5.0T | PCB JUMPER D0.6-P5.0 |
| BC639 | 9HSLBF00ZTU021 | BEAD INDUCTORS FBR07HA121TB-00 |
| BC642 | 9HSJW5.0T | PCB JUMPER D0.6-P5.0 |
| CF31 | 9HSBE455PMR003 | CERAMIC TRAP 4.5MHz |
| CF32 | 9HSBB455PMR004 | CERAMIC FILTER SFSRA4M50CF00-B0 |
| CLN108 | 9HSX3001A63304 | WIRE 040/BLA/AWG26#1007 |
| F601⚠ | 9HSAGU20CAG402 | FUSE 4.00A/125V |
| FH601 | 9HSH01Z00LY001 | FUSE HOLDER MSF-015 |
| FH602 | 9HSH01Z00LY001 | FUSE HOLDER MSF-015 |
| GP641⚠ | 9HSAZ000LD6005 | GAP. FNR-G3.10D |
| J108 | 9HSLBD00PKV007 | CHOKE COIL 47μH-K |
| J115 | 9HSLAXJATTU101 | INDUCTOR 100μH-J-26T |
| J178 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |

| Ref. No. | Part No. | Description |
|---|---|---|
| J179 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| J229 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| J249 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| J286 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| J292 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| JK721 | 9HSYEJ040JC001 | Y/C JACK YKF51-5558N |
| JK722 | 9HSXRJ010RP005 | RCA JACK AV1-06-001 YELLOW |
| JK723 | 9HSXRJ010RP006 | RCA JACK AV1-06-002 WHITE |
| JK724 | 9HSYRJ010RP001 | RCA JACK AV1-06-003 RED |
| JK726 | 9HSXRJ010RP007 | RCA JACK AV1-06-006(G) |
| JK727 | 9HSXRJ010RP008 | RCA JACK AV1-06-005(B) |
| JK728 | 9HSXRJ010RP009 | RCA JACK AV1-06-004(R) |
| JK729 | 9HSXRJ010RP006 | RCA JACK AV1-06-002 WHITE |
| JK730 | 9HSYRJ010RP001 | RCA JACK AV1-06-003 RED |
| JK801 | 9HSYSL020LY002 | HEADPHONE JACK MSJ-035-10A B |
| JS701 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| JS702 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| JS703 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| JS704 | 9HSJW7.5T | PCB JUMPER D0.6-P7.5 |
| L4 | 9HSGBMB3080 | SCREW, B-TIGHT M3X8 BIND HEAD+ |
| SA601⚠ | 9HSVQZ10D471KB | SURGE ABSORBER 470V+-10PER |
| SF11 | 9HSBB456PMR010 | SAW FILTER SAFHM45M7VAAZ00B03 |
| T401⚠ | 9HSTZ00CPMS005 | INVERTER TRANS ETJV25ZB11AC |
| T402⚠ | 9HSTZ00CPMS005 | INVERTER TRANS ETJV25ZB11AC |
| T403⚠ | 9HSTZ00CPMS005 | INVERTER TRANS ETJV25ZB11AC |
| T404⚠ | 9HSTZ00CPMS005 | INVERTER TRANS ETJV25ZB11AC |
| T602⚠ | 9HSTT00CPKT158 | POWER TRANS 4745 |
| TP300 | 9HSJW17.5T | PCB JUMPER D0.6-P17.5 |
| TP401 | 9HSJW10.0T | PCB JUMPER D0.6-P10.0 |
| TU1 | 9HSTUNNTUAL038 | TUNER TEQH9-009A |
| VR601 | 9HSRCB202HH014 | CARBON P.O.T 2k Ω B |

## FUNCTION CBA [9HS1ESA10233B]

| Ref. No. | Part No. | Description |
|---|---|---|
| **CAPACITORS** | | |
| C101 | 9HSE1AMASSL470 | ELECTROLYTIC CAP. 47μF/10V M H7 |
| C103 | 9HSHD1JK30B103 | CHIP CERAMIC CAP.(1608) B K 0.01μF/50V |
| **DIODE** | | |
| D101 | 9HSP4Z000L53HT | LED L-53HT |
| **TRANSISTOR** | | |
| Q101 | 9HSQSF02SC2785 | TRANSISTOR 2SC2785(F) |
| **RESISTORS** | | |
| R101 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R102 | 9HSRXAJR5Z0101 | CHIP RES.(1608) 1/10W J 100Ω |
| R103 | 9HSRXAJR5Z0152 | CHIP RES.(1608) 1/10W J 1.5k Ω |
| R104 | 9HSRXAJR5Z0152 | CHIP RES.(1608) 1/10W J 1.5k Ω |
| R105 | 9HSRXAJR5Z0222 | CHIP RES.(1608) 1/10W J 2.2k Ω |
| R106 | 9HSRXAJR5Z0272 | CHIP RES.(1608) 1/10W J 2.7k Ω |
| R107 | 9HSRXAJR5Z0472 | CHIP RES.(1608) 1/10W J 4.7k Ω |
| R108 | 9HSRXAJR5Z0682 | CHIP RES.(1608) 1/10W J 6.8k Ω |
| R109 | 9HSRXAJR5Z0101 | CHIP RES.(1608) 1/10W J 100Ω |
| R110 | 9HSRXAJR5Z0103 | CHIP RES.(1608) 1/10W J 10k Ω |
| R111 | 9HSRXAJR5Z0152 | CHIP RES.(1608) 1/10W J 1.5k Ω |
| R112 | 9HSRXAJR5Z0152 | CHIP RES.(1608) 1/10W J 1.5k Ω |
| R113 | 9HSRXAJR5Z0222 | CHIP RES.(1608) 1/10W J 2.2k Ω |
| R114 | 9HSRXAJR5Z0272 | CHIP RES.(1608) 1/10W J 2.7k Ω |
| R115 | 9HSRXAJR5Z0472 | CHIP RES.(1608) 1/10W J 4.7k Ω |
| R116 | 9HSRXAJR5Z0680 | CHIP RES.(1608) 1/10W J 68Ω |
| R117 | 9HSRXAJR5Z0680 | CHIP RES.(1608) 1/10W J 68Ω |
| R118 | 9HSRXAJR5Z0680 | CHIP RES.(1608) 1/10W J 68Ω |
| R119 | 9HSRXAJR5Z0682 | CHIP RES.(1608) 1/10W J 6.8k Ω |
| R120 | 9HSRXAJR5Z0153 | CHIP RES.(1608) 1/10W J 15k Ω |
| R121 | 9HSRXAJR5Z0153 | CHIP RES.(1608) 1/10W J 15k Ω |
| R122 | 9HSRXAJR5Z0393 | CHIP RES.(1608) 1/10W J 39k Ω |
| R123 | 9HSRXAJR5Z0680 | CHIP RES.(1608) 1/10W J 68Ω |
| R129 | 9HSCX4JATZ0103 | CARBON RES. 1/4W J 10k Ω |
| **SWITCHES** | | |

| Ref. No. | Part No. | Description |
|---|---|---|
| SW101 | 9HSST0101AL060 | TACT SWITCH SKHHARA010 |
| SW102 | 9HSST0101AL060 | TACT SWITCH SKHHARA010 |
| SW103 | 9HSST0101AL060 | TACT SWITCH SKHHARA010 |
| SW104 | 9HSST0101AL060 | TACT SWITCH SKHHARA010 |
| SW105 | 9HSST0101AL060 | TACT SWITCH SKHHARA010 |
| SW107 | 9HSST0101AL060 | TACT SWITCH SKHHARA010 |
| SW116 | 9HSST0101AL060 | TACT SWITCH SKHHARA010 |
| **MISCELLANEOUS** | | |
| CLN104 | 9HSX1L0170-003 | WIRE ASSEMBLY WX1L0170-003 |
| J277 | 9HSRXAZR5Z0000 | CHIP RES.(1608) 1/10W 0Ω |
| RCV101 | 9HSSESJRSRM006 | PHOTO LINK MODULE RPM7237-H9 |

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